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Thomas Munroe
INDIAN ANTIQUITIES:

OR,
DISSERTATIONS,

RELATIVE TO
THE ANCIENT GEOGRAPHICAL DIVISIONS,
THE PURE SYSTEM OF PRIMEVAL THEOLOGY
THE GRAND CODE OF CIVIL LAWS,
THE ORIGINAL FORM OF GOVERNMENT,
THE WIDELY-EXTENDED COMMERCE, AND
THE VARIOUS AND PROFOUND LITERATURE
OF HINDOSTAN:

COMPARED, THROUGHOUT, WITH THE
RELIGION, LAWS, GOVERNMENT, COMMERCE, and
LITERATURE,

OF
PERSIA, EGYPT, AND GREECE.

THE WHOLE

Intended as Introductory to, and Illustrative of,

THE HISTORY OF HINDOSTAN,
UPON A COMPREHENSIVE SCALE.

VOL. VI.

Containing DISSERTATIONS on the ORIGIN of the DRUIDS,
and the ANCIENT COMMERCE of HINDOSTAN.

LONDON:

PRINTED FOR THE AUTHOR,

AND

SOLD BY JOHN WHITE, FLEET-STREET.

1812.

INDIAN ANTIQUITIES

DISSERTATIONS

THE ANTIQUITY OF A RACIAL THEORY
THE SYSTEM OF RACIAL THEORY
THE THEORY OF CIVILIZATION

THE THEORY OF GOVERNMENT

THE THEORY OF LAW

THE THEORY OF ECONOMY

THE THEORY OF HISTORY

THE THEORY OF PHILOSOPHY

THE THEORY OF SCIENCE

THE THEORY OF ART

THE THEORY OF LITERATURE

THE THEORY OF RELIGION

THE THEORY OF ETHICS

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EVANSTON, ILLINOIS.

UPON A COMPARATIVE BASIS.

VOL. VI

CONTAINING THE HISTORY OF THE
ANCIENT AND MODERN
CIVILIZATION

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1892.

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P R E F A C E.

CONCEIVING myself entitled, by my original proposals, to select for discussion in these volumes any subject intimately connected with the ANTIQUITIES OF INDIA; and as none, I presume, can be more gratifying to the general class of *my* readers than those that equally concern India and Britain, I have selected the venerable Order of Druids, their doctrines, and rites, which have such an immediate and wonderful affinity with those of the Brahmins; and the ancient commerce of the Phœnicians, Carthaginians, and Greeks, carried on, prior to the Christian æra, with India on the one hand, and Britain on the other, for their consideration in this volume.

It was not my intention, indeed, in these

Researches, to have descended to period subsequent to that æra, but my gratitude to the Honourable Court of East-India Directors, for their liberal patronage of the History of Hindostan, my anxious desire to make this work essentially useful to gentlemen going out in a commercial capacity to India, and the important circumstance of the revival, at the present day, of that particular branch of its traffic with the East, which rendered this island so celebrated in antiquity, I mean the TIN of the Cornish mines—a measure which reflects such honour both on the patriotism and wisdom of the Directors, and is of such material consequence, at this momentous crisis, by retaining so much bullion in the country, and giving bread to so many thousands of distressed miners : these united reasons have induced me to deviate somewhat from my proposed plan, and to sketch out such a summary but clear view of the ancient and present commercial connection of Britain with India, as may prove at once gratifying to the scholar and useful to the merchant.

The Asiatic origin of the Druids has long been an acknowledged point in the world of antiquaries. Mr. Reuben Burrow, the great practical astronomer of India, was the first
perso n

person, who, after a strict examination and comparison of their mythological superstitions, and their astronomical periods, directly affirmed them to be a race of emigrated Indian philosophers.* The assertion, bold and unqualified as it was, made, at the time of my reading it, a considerable impression on my mind; and, in consequence, I sat down to that elaborate investigation of their rites and symbol, of which the prior Dissertation in this volume is the result.

The basis of my argument for their Indian extraction is, that the elder Buddha of India, who should never be confounded with the second Buddha or Bedou, the Fo of the Chinese, and the founder of an atheistical sect, in periods far more recent, is in fact, the Mercury of the West, and this is not only asserted by Sir William Jones, from the similitude of their rites and symbols, but can be astronomically proved; since, in India, the day of the week assigned to Buddha is by the Greeks assigned to Hermes, by the Romans to Mercury, and by the northern Nations to Woden; being denominated, in the respective dialects of those nations, Boodh or Buddha-

* See Asiatic Researches, vol. ii. p. 488, in the Appendix, Calcutta quarto edition.

war, *Ερμῆς ἡμερα*, Mercurii dies, Woden's day, and, from the last, corruptedly by us, Wednesday. The ancient MERCURIAL HEAPS, or CARNs, of those fire-adoring sages ; their veneration for the CUBIC, the symbol of Mercury among the early Greeks ; their representing the Deity in their immense groves under the form of the letter T, THAU, as the Egyptians designated their Thoth, or Hermes ; their reverence for the ANGUINUM, or serpent-egg, which is only the mundane egg of Tyre, rendered prolific by the embrace of the *Αγαθοδαίμων*, or good genius, symbolized by that serpent ; and, finally, the evident CADUCEUS of Mercury, designated in the globe, wings, and serpent, that formed their grand temple at Abury, and not only that but other conspicuous DRACONTIA, in Britain: all these circumstances enumerated, and fully discussed in the course of the Dissertation alluded to, are to myself abundant testimony of their connection with, if not descent from, Buddha. Under this appellation I contend must be understood some deified prince of the family of the Noachidæ, a distinguished AVATAR of Indian, who, in the lofty regions of the Tauric range, the remotest from the danger of inundation, but in æras to which regular annals cannot

cannot be expected to ascend, seems to have established an empire and a religion, which diffused their combined influence over every region of the Higher Asia, and many evident vestiges of which are still visible. Among these are the Thibetian rolls inscribed with Sanscreeet characters, alluded to by Sir William Jones, as cited in page 15 of this volume, as well as the ancient medals and imperial signets engraved with Thibetian characters, mentioned by Mr. Halhed,* and the frequent pilgrimages at this day undertaken by the more rigid devotees of India, from the banks of the Ganges and the most distant provinces of the Peninsula, to the territories of the Grand Lama. Accurately to ascertain, at this distant period, the *cause*, the *mode*, the *time*, of this emigration, exceeds the limit of human research: but possibly the first may be found in the general causes of emigration, curiosity, persecution, or the ambition, of men, who, in those early ages, combined a sort of *regal* with the *priestly* character. The *mode* was, doubtless, by land-journies, in company with the Celtic tribes, previous to the establishment of the great Indian empire and system of juris-

* See the Preface to Mr. Halhed's Sanscreeet Grammar, p. 5.

prudence which forbad emigration, in the more southern provinces; or allowing the early branches of the family of Noah for the purpose of effecting the gracious designs of Providence in peopling the earth to have had a knowledge of the MAGNET, by the way of the great Ocean itself. The *period* was, probably, when the true religion began to be corrupted, but before its *total* corruption, by the Sabian idolatries. In this view the matter appears to myself; if all my readers should not be equally convinced by the arguments which I have been able to produce, I still flatter myself, that the detail of many other curious facts which nearly concern them, as Britons, may yet amply reward them for the trouble of perusal.

I think it absolutely necessary, however, to shield myself from censure, for so warmly espousing an opinion that must appear entirely novel, if not extremely eccentric, to readers not conversant in Indian manners and history, by laying before them the following short extracts from the Dissertation of Mr. Burrow, before alluded to, in the Asiatic Researches, although I am far from esteeming it equally necessary to adopt his hypothesis of the alteration of the place of the *equator*,
connected

connected with the asserted migration. I have endeavoured to support his positions by arguments not hostile to religion, and far less violent to nature. “ From the aforesaid country, (he means Siberia, rendered habitable and fertile by the equatorial line passing through the centre of Asia,) the Hindoo religion probably spread over the whole earth : there are signs of it in every northern country, and in almost every system of worship : IN ENGLAND IT IS OBVIOUS ; STONEHENGE IS EVIDENTLY ONE OF THE TEMPLES OF BOODH ; and the arithmetic, astronomy, astrology ; the HOLIDAYS, GAMES, names of the stars, and figures of the constellations ; the ANCIENT MONUMENTS, LAWS, and COINS ; the LANGUAGES of the different nations ; bear the strongest marks of the same original.” Again he observes, on the supposition that the Indians were, in the infancy of their existence as a nation, divided into the two great sects of Brahma and Buddha, “ that the Brahmins were the true authors of the Ptolemaic system, and the Boodhists of the Copernican,* as well as of the doctrine of attraction, and that probably the established religion of the Greeks ;

* See page 192 of this volume, on the Druids’ presumed knowledge of the elliptical courses of the orbs.

and the Eleusinian mysteries were only varieties of the two different sects." Amongst other circumstances, he tells us, that he compared an astrolabe in the Nagari (the oldest Sanscreeet) character of India, with Chaucer's description of one, and found them to agree together most minutely; even the centre-pin, which Chaucer calls the horse, "*having a horse's head upon the instrument:*" and, after acquainting us that he meant shortly to enter into a full investigation of the question, he finally gives it as his own decided opinion, that "THE DRUIDS WERE BRAHMINS."*

The death of this ingenious gentleman in India prevented the completion of his engagement, and the present is only a humble effort, made amidst the pressure of illness, and other weightier pursuits, to fill up some of the outlines of his projected plan.

* Asiatic Researches, vol. ii. p. 489, Calcutta quarto edition

INDIAN ANTIQUITIES:

V O L. VI.

P A R T I.

BRITISH MUSEUM

1851

1851

DISSERTATION

ON THE

INDIAN ORIGIN OF THE DRUIDS;

AND ON THE

STRIKING AFFINITY

WHICH THE

RELIGIOUS RITES AND CEREMONIES,

ANCIENTLY PRACTISED IN THE BRITISH ISLANDS,

BORE TO THOSE

OF THE BRAHMINS.

DISSERTATION, &c.

SECTION I.

The Author unfolds his Design in this Essay.—
The immense Extent of the ancient Indian
Empire; and the wide Diffusion of the Indian
Mythology and Sciences throughout Asia.—
The geographical Limits of the not less exten-
sive Region of Scythia.—These two mighty
Nations, the Indians and Persians, being
throughout considered as one People, possessed
the greater Part of Asia: the Indians, from
the earliest Periods, a polished Race; the Scy-
thians, ever Barbarians.—Escaped from the
Horrors of the general Deluge, the Noachi-
dæ, who settled in Asia, inhabited the Regions
nearest the great Range of Taurus. In the
Median Mountains, and near the Heights of
Caucasus, were established, in Caverns, their
first

first Schools. The Colleges of Naugracut and Thibet, in the North of India, particularly famous. From thence emigrated into Tartary successive Colonies of Priests professing the Religion of Buddha, or Boodh, who was the Hermes, or Mercury, of the Western, and the Woden of the Northern, World. The Japhetic Tribes, described generally under the Names of Scythian and Celtic, straitened for Room and Pasturage, pursue their Direction through the Northern Asia, emigrate to Europe, and with them those Sages of the Indian Schools, to whom we give the Name of Druids.—Some remarkable Instances adduced of the striking Affinity existing between the primæval Languages of Asia and those spoken in Europe, particularly in the British Isles.

MY intention, in the following Dissertation, is to prove, as far as the remoteness of the æra alluded to, and the abstruse nature of the subjects discussed in the course of it will allow of proof, that the celebrated order of Druids, anciently established

in this country, were the immediate descendants of a tribe of Brahmins situated in the high northern latitudes bordering on the vast range of Caucasus: that these, during that period of the Indian empire when its limits were most extended in Asia, mingling with the Celto-Scythian tribes, who tenanted the immense deserts of Grand Tartary, became gradually incorporated, though not confounded, with that ancient nation; introduced among them the rites of the Brahmin religion, occasionally adopting those of the Scythians, and, together with them, finally emigrated to the western regions of Europe.

To form any correct notion of the extent of the Indian empire, when in its glory, we must consult the Sanscreeet geographers, and take our survey of a country comprising an area of near forty degrees on each side, and including a space almost as large as all Europe; a region divided on the west from Persia by the Arachosian mountains, limited on the east by the Chinese part of the farther peninsula, confined on the north by the wilds of Tartary, and extending on the south as far as the isles of Java. The above is the demarcation of the ancient limits of India by an author not likely
to

to have erred in defining them; and this trapezium, he goes on to observe, comprehends the stupendous hills of Thibet, the beautiful valley of Cashmir, and all the domains of the old Indo-Scythians, the countries of Nepal and Bootan, Camrup or Asam, together with Siam, Ava, Racan, and the bordering kingdoms, as far as the China of the Hindoos, or Sin of the Arabian geographers; not to mention the whole western peninsula with the celebrated island of Sinhala, or Lion-like men, at its southern extremity.*

If the period above-mentioned, remote as it is, should not be thought sufficiently distant in the annals of time for the first migration of the Asiatic colonies, and the earliest importation into the western world of the religious rites in use among them, we have it in our power, through the same authentic channel,† to penetrate to the very birth of civil establishments, and find the primæval ancestors of the Hindoos sitting, in patriarchal majesty, upon the throne of Iran, or Persia, in the very centre of all Asia, under the title of the Mahabadian dynasty,

* See Sir William Jones, in the *Asiatic Researches*, vol. ii. p. 419.

† See the *Dissertation on the Persians*, *ibid.* p. 43.

founded by the renowned Maha-Beli, or Great Belus, and from which they afterwards migrated to regions nearer the rising sun. This great extent in ancient periods of the Indian empire, and the prevalence of the Indian sciences and mythology over the greater part of that vast continent, cannot be more decisively proved than by the following remarks extracted from Mr. Halhed, to whom those sciences and that mythology, as well as their languages, are so familiarly known.

It is a very generally received maxim, that the wide diffusion of any particular language evinces the superiority in power and consequence of the nation with whom that language originated. Now, Mr. Halhed asserts the Sanscreet, or ancient language of India, generally spoken before the invasion of Alexander, to be a language of the most venerable and profound antiquity; the grand source as well as sacred repository of Indian literature, and the parent of almost every dialect, from the Persian Gulph to the China Sea. He is even of opinion, that the Sanscreet was, in antient periods, current not only over ALL INDIA, considered in its largest extent, but over ALL THE ORIENTAL WORLD,

WORLD, and that traces of its original and general diffusion may still be discovered in almost every region of Asia. In the course of Mr. Halhed's various reading, (and few men have perused more Oriental volumes,) he was astonished to find the similitude which it in many instances bore to the Chaldaic, Persian, and Arabic. He discovered the visible traces of its character, that character which he describes to be so curious in its structure and so wonderful in its combination, on the most ancient medals and imperial signets of Eastern kingdoms; and he hints that it might have been the original language of the earth.*

If the bounds of ancient India were thus large, not less so were those of ancient Scythia, for they extended from Caucasus to the borders of the Arctic circle, a tract including the vast plains of Tartary, the deserts of Siberia, and Asiatic Russia: yet through all this immense region no genuine vestiges of arts and sciences flourishing among them are clearly to be traced, notwithstanding the boasted discoveries of some eminent modern antiquaries. Among these,

* See the very elegant and learned preface to that Grammar, p. 5.

stands formost the celebrated M. Bailli, who endeavours to prove, in a treatise *On the Origin of the Sciences in Asia*, that a nation of profound wisdom, of elevated genius, and of antiquity far superior even to the Egyptians, Indians, and Chinese, once inhabited the deserts of Siberia, and from the cold and barren region of SELING-INSKOI, in the fiftieth degree of north latitude, propagated throughout the world the first rudiments of the sciences, particularly astronomy. He labours to demonstrate that some celebrated discoveries in astronomy could only have taken place in the high northern latitudes of Asia; that most of the ancient mythologic fables of Asia, considered in a physical sense, have relation to the northern parts of our globe; and that arts and improvement progressively travelled from the polar regions to those of the equator. This learned primitive, but long extinct, race of Scythian philosophers, for whose existence neither history nor tradition, but certain fanciful conjectures of the author, are alone brought in evidence, M. Bailli supposes to have been the masters of the Brahmins of India, but certainly erroneously;

neously ; for their own pride and self-importance would never permit them to submit to be taught by the sages of any nation ; much less by a race of men whom they ever considered as barbarians, and inhabiting what they thought the extremities of the world. From these positive and dogmatical assertions of Bailli, let us attend a better judge of the matter, Sir W. Jones, who, in his dissertation upon the ancient hordes that peopled the vast extent of northern Asia, describes them in general as a race of undisciplined savages, without the polish of arts, and without even the advantage of letters. As the subject has been little canvassed, and never before in so masterly and decided a manner, the reader will be easily induced to pardon my presenting him with the substance of what he has said on this point in his Essay on the Tartars.

“TARTARY, which contained, according to PLINY, an innumerable multitude of nations, by whom the rest of Asia and all Europe has, in different ages, been over-run, is denominated, as various images have presented themselves to various fancies, the great hive of the northern swarms, the nursery of irresistible legions, and, by a stronger metaphor, the foundery

foundery of the human race; but M. BAILLI, a wonderfully ingenious man, and a very lively writer, seems first to have considered it as the cradle of our species, and to have supported an opinion, that the whole ancient world was enlightened by sciences brought from the most northern parts of Scythia, particularly from the banks of the Jenisea, or from the Hyperborean regions: all the fables of old Greece, Italy, Persia, India, he derives from the north; and it must be owned, that he maintains his paradox with acuteness and learning. Great learning and great acuteness, together with the charms of a most engaging style, were indeed necessary to render even tolerable a system which places an earthly paradise, the gardens of Hesperus, the islands of the Macares, the groves of Elysium, if not of Eden, the heaven of INDRA, the Peristan, or fairy-land, of the Persian poets, with its city of diamonds and its country of Shadcam, so named from Pleasure and Love, not in any climate which the common sense of mankind considers as the seat of delights, but beyond the mouth of the Oby in the Frozen Sea, in a region equalled only by that, where the wild imagination of DANTE led him to fix the

worst

worst of criminals in a state of punishment after death, and of which he could not, he says, even think without shivering.

“ In truth, our first inquiry, concerning the languages and letters of the Tartars, presents us with a deplorable void, or with a prospect as barren and dreary as that of their deserts. The Tartars had no literature ; (in this point all authorities appear to concur ;) the Turks had no letters ; the Huns, according to PROCOPIUS, had not even heard of them ; the magnificent CHENGIZ, whose empire included an area of near eighty square degrees, could find none of his own MONGALS, as the best authors inform us, able to write his despatches ; and TAIMUR, a savage of strong natural parts, and passionately fond of hearing histories read to him, could himself neither write nor read.

“ Of any philosophy, except natural ethics, which the rudest society requires and experience teaches, we find no more vestiges in Asiatic Tartary and Scythia, than in ancient Arabia ; nor would the name of a philosopher and a Scythian have been ever connected, if Anacharsis had not visited Athens and Lydia for that instruction which his birth-place
could

could not have afforded him. But ANACHARSIS was the son of a Grecian woman, who had taught him her language, and he soon learned to despise his own. He was unquestionably a man of a sound understanding and fine parts; and among the lively sayings which gained him the reputation of a wit even in Greece, it is related by DIOGENES LAERTIUS, that when an Athenian reproached him with being a Scythian, he answered, ‘ My country is indeed a disgrace to me, but thou art a disgrace to thy country.’

“ Had the religious opinions and allegorical fables of the Hindoos, as M. Bailli, and after him M. D’Ancarville and others, have asserted, been actually borrowed from Scythia, travellers must have discovered in that country some ancient monuments of them, such as pieces of grotesque sculpture, images of the Gods and Avatars, and inscriptions on pillars or in caverns, analogous to those which remain in every part of the western peninsula, or to those which many of us have seen in Bahar and at Banaras; but (except a few detached idols) the only great monuments of Tartarian antiquity are a line of ramparts on the west and east of the Caspian, ascribed indeed

deed by ignorant Muselmans to YAJUJ and MAJUJ, or Gog and Magog, that is to the Scythians, but manifestly raised by a very different nation, in order to stop their predatory inroads through the passes of Caucasus.

“ From ancient monuments, therefore, we have no proof that the Tartars were themselves well instructed, much less that they instructed the world ; nor have we any stronger reason to conclude, from their general manners and character, that they had made an early proficiency in arts and sciences : even of poetry, the most universal and most natural of the fine arts, we find no genuine specimens ascribed to them, except some horrible war-songs, expressed in Persian by ALI OF YEZD, and possibly invented by him. After the conquest of Persia by the Mongals, their princes, indeed, encouraged learning, and even made astronomical observations at Samarkand ; and, like the Turks, became polished by mixing with the Persians and Arabs, though their very nature, as one of their own writers confesses, had before been like an incurable distemper, and their minds clouded with ignorance. Thus also the Mancheu monarchs of China have been patrons of the learned and ingenious ;

ingenious ; and the Emperor TIENLONG is, if he be now living, a fine Chinese poet. In all these instances the Tartars have resembled the Romans ; who, before they had subdued Greece, were little better than tigers in war, and fauns or sylvans in science and art.”—Sir W. Jones’s Essay on the Tartars, in *Asiatic Researches*, vol. ii. p. 223.

Thus far Sir W. Jones, who investigated this argument of M. Bailli in a region of Asia not very remote from the ancient residence of the vaunted race who were the objects of his panegyric. In truth, the people, to whom M. Bailli’s description is most applicable, are the northern progeny of Brahmins settled near the Caucasus, and in Thibet, where very celebrated colleges of learned Indians were anciently established, particularly at Nau-gracut and Cashmere ; in which latter region it is supposed very considerable treasures of ancient Sanscreet literature are deposited, which have not been examined. Indeed, in express confirmation that the Brahmins, and consequently the sciences of India, have not *always* flourished in a situation so immediately southern, as of late æras they have chosen, I am able, upon the high
authority

authority of Mr. Hastings, to assert that an immemorial tradition prevails at Bernares, *that they originally came from a region situated in forty degrees of northern latitude.*

In addition to the assertion of Sir W. Jones, cited above, that the ancient inhabitants of Scythia were little better than savages, without science and without even the advantage of a written language, though the dialects spoken among them were almost as numerous as their tribes, we are favoured with the following important intelligence, so directly elucidatory as well as corroborative of the hypothesis on which this Dissertation is founded. After acquainting us that the character of Thibet is evidently Indian, and that the Brahmin religion has immemorially flourished in that religion, he asserts that the priests of Buddha have been found settled even in Siberia, (of which indeed the famous medal found amidst the ruins of a Siberian temple, and engraved in the fifth volume of Indian Antiquities, is an unequivocal proof,) and that rolls of Thibetian (that is, Indian) writing have been brought even from the borders of the Caspian. Admitting that these priests of Buddha, using the Indian letters and ver-
sed

sed in the sacred and civil institutes of Brahma, had travelled thus far, it cannot be thought improbable that, with the colonies which emigrated from northern Asia into the west, many of these priests might have mingled, and thus wafted into Europe, much of the theology, jurisprudence, and manners, of the Indian nation. But the hypothesis for which I contend in reality rests upon a firmer basis than probable conjecture ; and the series of historical evidence by which it is supported shall be progressively detailed.

Before we proceed farther, however, in this investigation, it is necessary that we should attend to the history and situation of their Celtic brethren, for they were equally descendants of Gomer, the great progenitor of this northern race ; and as, in a Dissertation like the present, *nice* disquisitions concerning the subordinate divisions of that primæval tribe are out of the question, or, at least, are of no immediate importance in the survey of the very early periods to which I allude, I shall consider them all as one great family ; and, with Strabo, apply the general name of Scythians and Celto-Scythians to the first colonies who emigrated from Asia into Europe.

It

It is sufficient for me to admit, in this place, that the Celts were the *elder* branch of that family. The difference contended for seems principally to arise from their situation, which was more remote from the central spot whence the whole renovated race of man diverged in various directions.

That central spot was, doubtless, the great Tauric range round whose stupendous eminences it was natural for a race, recently escaped from the horrors of a general inundation, to plant themselves. While the progeny of Shem gradually diffused themselves thence over the warm southern regions of Asia, and one mighty branch of the family of Ham emigrated to Africa, the descendants of Japhet directed their course northwards, branching out widely, at the same time, towards the East and West quarters of that northern district. The promise made to Japhet was, that his borders should be enlarged, and the isles of the Gentiles, by which the commentators generally understand Europe, be divided among his posterity. In consequence, it may be supposed, and history asserts, that their numbers multiplied in a far greater proportion than their brethren. In the course of their national increase, straitened for room and

distressed by want of pasturage for the immense flocks necessary for their support, this elder and nobler branch of the Japhetic tribe moved still farther and farther off from the neighbourhood of the Caucasus, and gradually peopled, first the whole north of Asia, and then Europe, where they gradually established themselves from the banks of the Danube to the pillars of Hercules ; that is, of their first conductor, whosoever he was, to the celebrated Straits, thus denominated. The exact period in which the Scythian Nomades begun thus to move forward from the mountains to the north of Persia and India, it is scarcely possible to ascertain with precision, but we may, without any violation of probability, allow it to have taken place a century after the dispersion from Babel ; by which time, it may be supposed, the pure patriarchal worship became deeply polluted by the introduction of multifold idolitry, and that astronomy, which, we learn from Calisthenes, began to be formed into a system at Babylon 1903 years before its capture by Alexander, had extensively introduced into the theological rites of Asia the splendid Sabian superstition, or worship of the host of heaven.

That the British isles were in reality first
peopled

peopled by those Gomerian, or Celtic, tribes, which, in the very early ages after the dispersion, spread themselves through Europe, is not only evident from the most authentic history of those tribes extant, but from the very strong affinity in manners, language, and religious rites, existing between that northern nation and the ancient inhabitants of this country. The subject of the striking similitude apparent in their ancient customs and religious ceremonies shall hereafter be discussed at large. In regard to similarity of language, I must observe, that the very name of their great ancestor, variously changed into Comarian, Cimmerian, Cymbrian, or Cumbrian, is to be traced wheresoever that colony passed along the whole line of their descent, from the regions of the Northern Asia; even from the *Cymbrian* Chersonese to the loftiest of our *Cumbrian* mountains. The towering *pens*, or heads, of the Welch mountains, not less than the mighty *Appenines* of the continent, proclaim this truth; and the Alps and Albion alike prove themselves to be thus denominated from the Celtic *Alp*, or *Alb*, signifying white, in allusion to the eternal snows on the summit of the former, and the white cliffs that encompass the latter. Indeed, as we advance

in this Dissertation, no inconsiderable testimony will be found to arise, from the survey, of the derivation of all languages from one primæval tongue, as well as of all nations from one great family. The monumental remains connected with the most ancient system of Asiatic mythology, yet existing in the two countries under consideration, and the intimate mixture in both languages of terms radically Hebrew, added to the circumstance of traditions in both countries uniformly pointing to one great founder, who flourished between four and five thousand years ago, will, of themselves, go far towards proving these assertions concerning their identity, and their having originated from one common stock.

A celebrated grammarian has remarked, *Nec modo Indicam, Persicam, Syram, Arabicam, Hebræ junctissimas linguas; set et Gothicam, seu Celticam linguam*;* and Rowland, in his *Mona*, asserts, that no less than three hundred Hebrew *radices* are to be found in the British tongue alone.† From his list I shall select a few only which must carry conviction of their primæval derivation. For instance, who can doubt of the British word BOOTH, *a cottage*, being derived from the Hebrew BETH,

* Franciscus Junius Prefat. Grammat. p. 19.

† See Rowland's *Mona Antiqua*, p. 278.

a house; the *earth*, from ERETZ; *to babble*, from BABEL, alluding to the confusion of tongues; CIST, from CIS, *a chest*; DAGGAR, from DAKAR, *a short sword*; the British KERN, or CORN, *a horn*, from KEREN; CROMLECH, *a sacrificial stone* of the Druids, from CÆREMLUACH, *a burning stone*; and SARPH, an old British word for *serpent*, from the Hebrew SARAPH. These, and a great variety of other terms, there enumerated, though coming to us more immediately through a Celtic or Gaulic medium, it is impossible to deny, must have a radical connection with the sacred dialect.

Of the preceding assertion made by the grammarian Junius, viz. that of Hebrew, or the old Syrian, being radically interwoven in all the Eastern tongues, very decided and numerous instances may be found, so far as regards the Persians and Arabians, in Walton's Preface to his Polygott, and so far as the Phœnicians and their Assyrian neighbours are concerned throughout the whole of Bochart's Phaleg. With respect to the Indian or Sanscreeet language, though hitherto very little investigated, we find the traces of it in the very name of their first grand deity Brahma, the Creator, which is, doubtless, connect-

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ed with, if not immediately derived from, the Hebrew Bra, or Bara, *created*, occurring in the first verse of Genesis, BERESCHITH BRA ELOHIM, *In the begining God created*. Also in their great divinity, Isa, the goddess Nature personified, we find the Hebrew Ichsa, *the first existent*, or *grand parent*, which the Rabbins assert to have been the original name of Eve, the great mother of mankind, and, probably, the genuine Isis of the Egyptians ; at least such is Stillingfleet's very rational conjecture.* Surya, the Sun, that object of supreme reverence in India, has probably very near affinity to the Suria of the Chaldaic, a language which some eminent critics conceive to be the most ancient dialect of the Hebrews ; and when it is considered, that in Suria, or Syria, was first practised the Sabian superstition ; that the Egyptians, according to Eusebius, called Osiris, Surlus ; and that, in Persia, Sure was the old name of the Sun ; the supposition may be thought to approach near upon certainty.

The Hebrew word RACHAV, *great and powerful*, may be radically connected with the Sanscrit *Rajah*. In Celtic, *Orch*, *Arch*, and *Rich*, derived from the same root, are used as initials

* See Stillingfleet's *Origines Sacrae*, p. 551.

or terminations to names of distinguished eminence; and here we find the probable etymon of the Greek terms *αρχη* and *αρχων*, *chief* or *governor*. We are certain, however, that the ancient name of that race of kings, written in Sanscreeet *Roy*, bears as near affinity to the Gaulic *Roi*, as that of *Ranna*, a race of Indian queens, to the Spanish *Renna*, and the Gaulic *Rein*; both used in exactly the same signification, though in countries so extremely remote from each other.

It is remarkable, that the Sanscreeet word *GATE*, or *GAUT*, a *barrier* or *passage*, is to be found in the same sense in *Ramsgate* as in *Basagate*, and the most natural derivation I know for the word *Age*, is the Sanscreeet *Yug*, or *Period*.

The term *Div*, in *Welch*, *God*, and in *Cornish*, *DIU*, is the very same word used in *India* for the celestial deities, who are called *Dives* and *Devatas*; and the reader's surprise will, perhaps, be not a little excited, when I inform him that *Colonel Vallancey*, well known for his researches into old *Irish literature*, told *Sir William Jones*, that *Crishna*, the name of the *Indian Apollo*, is actually an old *Irish word* for the *SUN*.* It will not less

* Consult *Asiatic Researches*, vol. i. p. 262.

excite that surprise to hear, that according to Dr. Parsons, in his *Remains of Japhet*,* Colonel Grant was enabled, solely by his knowledge of the old Irish language, to decipher the Thibetian characters on the Siberian medal above alluded to, and the explanation of which was given in the *Indian Antiquities*.

Baal, or Bel, seems to have been equally known as an appellative of the Sun in Britain as in Asia; for Toland, in his *History of the Druids*, (and the fact has been since confirmed to me by intelligent natives, as well of South as North Britain,) tells us, that the fires which flamed on May-eve at the top of the ancient Carns, or Druid-heaps of stone, in honour of the Sun, were called BEALTINE, or the fires of Belus.† The term DRUID itself is, doubtless, derived from the Celtic Dru, or Deru, an oak; and it is remarkable, that, in Welch, Deruen and Derwen still preserve the same signification. These particular appellations immediately direct our attention to the Sanscreeet name of the old Brahmins, of the forest of Gandharvas, which occurs so

* See Parson's *Remains of Japhet*, p. 186.

† Toland's *History of the Druids*, p. 67.

often in the Sacontala. “Who, like the choleric DERVASAS, has power to consume, like raging fire, whatever offends him?” The Dervish of the East, therefore, and the Druid of the West, are the same character, under names but little varied. Indeed Keysler expressly affirms this: *Sacerdotum genus apud Turcas ab antiquissimis temporibus conservatum DERVIS, et nomine et re DRUIDIS.**

The Auruna, also, or day-star of the Indians, like the god Horus, or light personified of the Egyptians, may be without violence derived from the Hebrew AUR, *lux*, or, if the reader pleases, from OR, *gold*. Adam, the great progenitor of mankind, in Sir William Jones’s opinion, may be found in the Sanscreeet Adim, the first; and Nuh, or Noah, is plainly recognized in their celebrated Menu, who, after the flood, repeopled the renovated world. In fact, the name and history of Noah and of his three sons are precisely the same in the Sanscreeet as the Hebrew Bible. In the ancient geographical records of India, we find the whole country denominated after Cush, the eldest son of Ham, its domestic appellation being Cusha-Dweepa, and we know that the

* Keysler’s Antiquit. Septentrion. p. 36.

inhabitants of the nothern district were anciently called Cuthæi. We find again Raamah, the fourth son of that Cush, in the Indian Rama, renowned first as a conqueror, and afterwards as a god, throughout the whole extent of that vast region ; and we discover his last son Nimrod, or Belus, in their Bali, the Baal and Bel of their neighbours. A very great variety of similar instances, not only in the way of striking etymological deduction, but of direct identity in person and character, between the ancient heroes of these respective nations, will hereafter be noticed by me, if not in these pages, at least in the greater historical work, which these various Dissertations are intended to illustrate.

At present, let us return to Britain, and confine our inquiry to the ancient name of these islands, a subject concerning which two very celebrated writers, Camden and Bochart, have advanced very opposite opinions. Opposite, however, as these opinions apparently are, they may both have for their support a certain degree of truth.

Camden contends, that Britain was so called from *brith*, a Celtic word, signifying *painted* ; *tain*, or *tan*, a *region*. If Camden be right in the former part of this assertion,

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in the preceding volumes of the Indian Antiquities, sufficient evidence may be found that he is so as to the latter part of it. In the first, or geographical, Dissertation, in particular, I had occasion to remark, that, in Persian, *istan*, or *stan*, was the name of a land, or region, as, for instance, in Chuzistan, the region of Cush; in Hindostan, the region of the Hindoos; in Multan, or Mallitan, a province on the Indus, and meaning the country anciently possessed by the Malli. This term, therefore, of Persian original, was brought by the Celtic colonies into these western regions, and thus Britain, according to this writer, is the country of the Brith, or painted people, from which circumstance, probably, in succeeding times, the same nation came to be denominated by the Romans, who translated the term, Picti, the Picts, or *painted people*.—The learned Bochart, however, whose studies were directed to the investigation of Phœnician Antiquities, with great ingenuity, and very consistently with the hypothesis laid down in his Phaleg, derives the name Britain from Baratanac, the *land of tin*; and as that was a commodity for which these islands were celebrated in the Asiatic world, it is by no means improbable, that the Phœnicians,

who

who traded to this part of the world to obtain it, knew the island by that name. The Greeks afterwards, treading in the commercial steps of that industrious and adventurous race, called it after them *Βρετανική*, whence Britain. It is natural to suppose that the production for which an island was famous should give its name to the country that produced it, especially among a nation devoted to commerce, and who probably knew nothing of the people or the island beyond the coast where the mines were wrought, or the provinces immediately adjoining. The Romans, whose aim in sailing hither was conquest rather than commerce, principally attended to the people, and imposed a name somewhat conformable to their national habits, and adapted to display their ruling propensity.

SECTION II.

One great Tribe of the ancient Indian Nation, being the immediate Progeny of Cush, was called Cuthæi, and their Descendants brought into Britain the Cuthite Superstitions.—A brief Summary of those Superstitions as anciently practised in the British isles.—Those Superstitions exhibit many evident remains of the pure patriarchal Theology; blended with the Corruptions of the Sabian Idolatry.—A more particular Account of the Indian God Buddha, the Hermes of Egypt, and the Mercury of the West.—The Assyrian and Indian Belus the true Hercules of Antiquity, and the God Belen of the Druids proved to be so by their BEALTINE, or Fires lighted in Honour of Baal. — Various Eastern characteristic Designations and Symbols of Mercury, discovered in Britain.—The Woden's Day, or Dies Mercurii,
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of the Northern and Western Nations, the Dies Boodh of India. — Cubical Statues and Mercurial Heaps. — The letter THAU. — The Harp of the Druids. — The Lyre of Hermes, &c. &c. — The FIRST OF APRIL, an ancient Indian Festival. — The FIRST OF MAY, or the Day on which the Sun enters the Bull, an ancient Phallic Festival immemorially preserved in the East. — Relics of these Festivals, and the Sports practised on them, still preserved in Britain. — An extensive Parallel drawn between the religious Rites and civil Customs anciently prevalent in India, Britain, and the Northern Empires of Europe.

AFTER the general introductory remarks in the preceding section, connected with etymology and history, we are now about to enter on the investigation of more important points, and to consider THE REMAINS OF THE CUTHITE, OR ANCIENT INDIAN, WORSHIP IN THE BRITISH ISLANDS.

I have before observed, that a part of the Indiannation were anciently called Cuthæi, a
name

name assuredly derived from their great ancestor Cuth or Cush; afterwards they were called Cutheri; and the present Kuttry tribe, one of the four great casts into which the nation was divided, are probably their immediate descendants. It has also been observed, that the residence of the Cuthæi was in the high northern latitudes of India, where, in fact, Alexander found them; and it is probable they had wandered, as is usual with infant colonies, from the cold and bleak regions in the immediate neighbourhood of the Caucasus, to the warm and genial provinces lying nearer the southern tropic. I have given a glimpse of the manners of the gloomy Cuthite worship, in which the ancient Indians were immersed. I have shewn that they delighted in the deep shade of trees of gigantic growth; rocks of immense magnitude; caverns of the profoundest depth; altars eternally smothered with the blood of men and beasts, poured out in barbarous sacrifice to the evil dæmon; that in their sacred ceremonies they used an infinite number of consecrated grasses, cautiously gathered under the benign aspect of some particular planet, with more especial reference to that of the silver empress of the night; that their ablutions were innumerable; that they

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were conversant with the most dreadful rites of magic, devoting their enemies to destruction with tremendous imprecations; that they believed in the transmigration of the human soul; and were absorbed in astronomical speculations and physical researches. In addition to these considerations, when we advert to the universal veneration for serpents in India, so congenial with the superstitious reverence entertained by the Druids for the Anguinum, or serpent's egg; when we recollect the sacred staff constantly borne by the Brahmins, so similar to the consecrated wand, or magic rod, of the Druids; their veneration for the chakra, wheel, or circle, which constantly adorns the hand of Bramah, and was with the Druids also an emblem of eternity; the solemn rites of initiation adopted equally in the caves of Elephanta, and the subterraneous recesses of Mona; the addiction of both to the solar worship, and their perpetual preservation of the sacred fire in the depths of those caverns; and that, as the Brahmins were the first and most venerated tribe of India, so the Druids formed the first order of nobility in Britain; when we recollect the profound reverence of both for the white horse of sacrifice and the sacred steer, that were never to bear harness

or yoke ; their devotion to vast pyramidal heaps of stones ; and that the temples of India, at least those of the larger kind, are, for the most part, uncovered, like Stonehenge ; that the priests of each nation were, during their solemn rites, arrayed in stoles of virgin white, and, alike, wore that lofty tiara, which may be seen on the head of the Persian Mithra, engraved in Hyde and Mountfaucon ; when all these circumstances are attentively considered, it is impossible to doubt, that, at some remote period, the two orders were united, or, at least, were educated, in the same grand school with the magi of Persia and the seers of Babylon. Upon a few of the more prominent features just remarked, as having existed between the Brahmins and Druids, I shall presently enter at considerable length, occasionally citing, as I proceed, the ancient classical authors that treat concerning them ; and those learned modern writers, whose indefatigable researches have made us best acquainted with that wonderful and secluded race of men. But let us here take a short retrospective view of the gradual lapse of mankind from the sublime purity of the primæval devotion into that abyss of idolatry in which a few centuries saw them plunged.

In the ages immediately succeeding the general deluge, the memory of that tremendous punishment inflicted for crimes committed in the ante-deluvian world, undoubtedly for a long time, kept the primitive race, who peopled Asia, steady to the principles and practice of the virtuous branches of the family of Noah. In the line of Shem and of Japhet, it seems to be universally confessed, by Jewish as well as Christian divines, that the doctrines of the true religion flourished unviolated till the ambitious Nimrod, or Belus, extending his dominion from Babylon through the neighbouring empires of Asia, introduced, with the arms of Assyria, the Sabinian, or Chaldaic, superstition, and polluted the altars of the true God with the idolatrous fires that burned to the host of Heaven. At whatsoever period, however, superstition was first propagated, and debased them, it is a fact not to be controverted, that those grand and essential principia of all true religion, the immortality of the soul, and a firm belief in a supreme presiding Providence, formed the basis equally of the Brahmin and the Druid codes of theology. That they also believed in the doctrine of the *defection* of the human soul from a state of original rectitude, its *re-*
generation

ating the vengeance of incensed Omnipotence. In these principles and in this conduct of the Druids we trace the evident remains of the two grand systems of theology, the pure and the depraved, which prevailed in the first ages, and among the primitive race: the former inculcated by the virtuous father of the renovated world; the latter introduced by Belus, the impious parent of the Sabian heresy; the one a system of beneficence and mercy, the other a system of nefarious homicide. Men became more and more immersed in these superstitious and bloody practices, as the traces of the benevolent patriarchal religion were gradually effaced from their minds; and although the Brahmins, and their pupils, the Druids, have, while they practised the sanguinary rite, retained in memory some traits of their original reference, this seems by no means to have universally been the case. In general, the farther they removed from the immediate spot on which the first great interesting scenes were transacted, that is, Chaldæa, the theatre of renovated nature, the very occasion of these barbarous institutions intended to purify man and appease his Maker, was obliterated from their minds. They continued to practise them without knowing their allusion, and remained polluted

ted with blood without even the consciousness of guilt, and without the prospect of redemption.

The most ancient Belus, above alluded to, whom Cicero calls Hercules-Belus, seems to have been the great progenitor of the royal Balic line, who established themselves in Assyria, Phœnicia, and India, and of those colonies who, after their leader, were denominated by the Greeks *Heraclidæ* and *Belidæ*. To this great deified hero and our Celtic Mercury have been assigned, by the ancients, all those renowned exploits which form the most brilliant annals of the infant world, and swell the volume of its early history. They were the indefatigable explorers of the most distant regions of the habitable globe; they were the intrepid chieftains who led the successive colonies that issued from the overcharged plains of Mesopotamia to riches and to glory. Concerning each of these illustrious characters I shall have much hereafter to remark, but, with respect to Hercules-Belus, I think it proper, at this early period of the essay, to state, that to his comprehensive history and important character ought to be referred the far greater part of those heroic feats, that in such great profusion are heap-

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ed upon others who bear the distinguished name of Hercules. This Hercules, afterwards canonized and worshipped as the Sun, under the name of Baal, because probably he first instituted the solar worship in Asia, stands on record as the first great navigator to the shores of Europe, and had a splendid temple erected to him at the mouth of those straits, called from him the pillars of Hercules, as being the limits of his travels to the West. There, in that temple of Gades, probably the first Asiatic superstitions were publicly performed in Europe, whence they would naturally become still farther diffused, as the Eastern colonies were themselves more dispersed over that continent and the isles adjoining. But from these general strictures on the character of Hercules and his worship, let us take a nearer retrospect of the sage and secluded inhabitants of the groves of Mona.

The Druids are, by Pliny and other writers, asserted to have derived their name from *δρυς*, an oak ; but, as the order probably existed prior to the Greek term, and as it is not easy to conceive whence the Druids in their caverns should have learned to talk Greek, it is safer to derive it, as before intimated, from DRU, or DERU, an old Celtic word of the same

same signification, whence, it is likely, the Greek was formed.

Strabo distinguishes this venerable tribe of pholosophers into three classes; Βαρδοι, bards, 'Ουαταις, strictly priests, and Δρυιδαι, properly the sacrificers under oaks.* Cæsar, in his sixth book de Bello Gallico, has discoursed largely concerning these holy hermits and their religious institutions. The whole of his account is too long for insertion in these pages; but it is very remarkable that he derives the Druids of Gaul from Britain, whereas the more general opinion among antiquaries is, that the Druids of Britain were a colony from Gaul. Among other points of doctrine peculiar to them, he enumerates their belief in and inculcation of the immortality of the soul, and its successive transmigrations through various bodies; their mysterious magical rites; their theories of the heavens, and the motions of the stars; their knowledge of the magnitude of the earth, and their profound speculations in physics, in morals, and in theology.† When it is considered that all this accumulation of science was con-

* Strabo, lib. iv. p. 189.

† Cæsar's Comment. lib. iv. cap. 13.

finned to one order, or sect, of a nation, involved otherwise in the profoundest ignorance and barbarity, there arises still more abundant reason to suppose that science of exotic growth and that order of foreign original.

Dr. Borlase, author of the History and Antiquities of Cornwall, has devoted a chapter of that learned work to the consideration of the circumstances so remarkably similar between the religious rites of the British Druids and the old Persians. As, however, in the former part of the Indian Theology, I have entered at great length into the subject of the Persian worship, and have already proved the near affinity which the Persian religion, in many of its grand and leading points, bore to that established in India, and as we have learned from Sir W. Jones, not only that a race of Brahmins anciently sate on the throne of Persia, but that nine words out of ten of the old Pahlavi dialect are genuine Sanscreeet; I conceive that every fresh proof adduced by Dr. Borlase, of the striking similitude in the religious doctrines and ceremonies of these distant tribes of philosophers, is an additional corroboration of the hypothesis, which asserts them to be of the ancient school of the venerable Brachimans,

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and of the sect of the elder Buddha, because they venerated Mercury, and Buddha is the Indian Mercury, honoured with the same rites, and decorated with the same symbols.

Various writers also on British antiquities have judged, from a partial examination of the Phœnician mythology, that the whole of the Asiatic superstitions imported into Britain were brought into this country by a Phœnician colony; but this decision, though partly just, because colonies did undoubtedly in very early ages migrate hither from Tyre, with possibly a chief assuming the name of Hercules for their conductor, since Hercules was the grand agent of antiquity on all these occasions, is not true in the extent contended for. It will be recollected, that, at the remote period at which I suppose the first colonies to have moved off from the great Tauric range, the whole mass of eastern superstitions was concentrated in Assyria, and that the Phœnician religion, as well those parts of it which were of a purer nature as those which were corrupted by the prevailing Sabian idolatry, was, with exception to a few local divinities, and peculiar rites afterwards adopted in Phœnicia, the established religion of the higher Asia and the Brachmans.

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Of a great and comprehensive argument, it is impossible, consistently with propriety in a mere Dissertation, to unfold more than a few leading traits; and those I shall devolve in as much order as the investigation of a subject so remote, and, in its nature, desultory, will allow of. There are few facts in ancient history which can be so clearly proved, as that the god Buddha, or Boodh, of the Indians, was the Oden, or Woden, of the northern nations. The first proof of it is, that very curious circumstance with which the acquaintance of Mr. Halhed with the Sanscreeet language enabled him first to make his countrymen acquainted; that the days of the week, in India, are named after the same planet to which they were assigned by the Greeks and Romans; and that BOODH WAR, or Dies Boodh, is that fourth day of the week, which, in our language, derived from the Celtic and Getic, is denominated WODEN DIES, that is, *Oden's*, or *Woden's Day*, corruptly pronounced Wednesday. The period in which the Indian Boodh flourished, which was in the earliest post-diluvian ages, as well as his planetary designation, and the astronomical symbols with which he is adorned, evince him to be the same identical person as the Taut of Phœnicia,

nicia, whom all antiquity, not dreaming of an Indian Boodh, with united voice, allows to have originally migrated from Phœnicia, and to have settled in Upper Egypt. Taut, in truth, was no other than the elder Hermes, or god Anubis, of that country; and it was this exotic god-king, as I have elsewhere endeavoured to make fully evident, who caused that most ancient and sublime symbol of the Triune Deity, the WING, the GLOBE, and the SERPENT, to be exalted on the lofty portals of all the Egyptian temples, as an eternal memento to revolving ages, that such a patriarchal notion of a distinction in the divine nature did actually exist; and, where it now stands, as may be seen in the correct and beautiful engravings of Pococke and Norden, many of them copied into the preceding volumes of Indian Antiquities. It was also this identical Taut, who, under that other name of Hermes, instructed the Egyptians in the elements of astronomy, music, and letters; and who, borrowed from the mythology of those nations, under the later name of Mercury, was venerated by the Greeks and Romans as the God of Eloquence and Commerce. That in the mythologies of Asia there should have been two Boodhs and two

Hermes

Hermes will not appear strange to those readers who may reflect on the general prevalence in the ancient world of the doctrine of divine and successive emanations. Each was worshipped as a deity, and each decorated with similar illustrative insignia; for, it was the uniform system of the ancients, when they exalted to divine honours some distinguished mortal, to invest the deified person with the symbols of the virtues and the sciences for which he was, when living, most celebrated; while, in a constant contemplation of the alegorical and spiritualized character, they forgot, by degrees, his terrestrial origin. Thus Hermes, having taught the Egyptians music, they gave him a testudo, or lyre, a symbol for ever occurring in the caverns of the Thebais; that testudo afterwards exalted to the skies for one emblem; while, for another, they gave him wings, and called him the Messenger of the Gods, either alluding to the rapid revolution of the planet that bore his name, or because, as an astronomer, he had explored the heavens, and revealed to man the secrets of the sky. In fact, Taut, Buddha, and Hermes, are only the varied appellations of some distinguished character, the immediate descendant of Noah, who earliest

liest cultivated the arts reviving after the deluge, and who, leading colonies to distant regions, diffused the light of science over the renovated globe. To this illustrious character, as was before observed in the case of the Assyrian or Hercules Belus, the founder of the race of the Heraclidæ and the Belidæ, the several branches of the patriarchal family laid claim as a common ancestor; assumed his name as the chieftain of their tribe, regarded him as their tutelary genius, and, in the respective systems of mythology, instituted among them in succeeding ages, adored him as a divinity.

If the reader should be of opinion, that the very remarkable circumstance, of the same planetary deity giving name to the same day of the week in India and Britain, will not prove the absolute identity of Boodh, of Woden, of Taut, and of Hermes, let us go from Britain to Gaul, where another branch of the great Celtic family settled for corroborative evidence of that identity, and we shall find, in the appellation of one of their chief deities, the very title of the Phœnician and Egyptian God. The name of Thoth and Taut is found very little disguised in Theutates, though I own the benign character

racter of the Indian Boodh, who *forbade human sacrifices*, is not so very apparent in that line of Lucan's Pharsalia,

—————"Immitis placatur sanguine diro
THEUTATES."

Lib. I. v. 439.

The circumstance, however, of the Indian god's forbidding these cruel sacrifices, is a proof of their existence in the early period of his reign; and one or both of the subjoined arguments may be reasonably urged as a palliative for the continuance of a part of his votaries in these nefarious rites, either, in the first place, that they migrated before the order for their suppression was publicly promulged; or, in the second, that the native Scythian ferocity, not being entirely subdued by their commerce with the Brahmins and the gentler laws of the mild Veeshnu, obstinately continued to practise a rite so congenial to the original bent of a martial and sanguinary disposition. If after this any doubt should remain in the reader's mind concerning the identity of the deity, let him advert to the symbols which he bore, the mode by which the Druids represented him, and to that peculiar allegorical delineation of the doctrines which he taught the Oriental world in the figure of the

ORB,

ORB, SERPENT, and WINGS, which is engraved in not less conspicuous characters on the extensive plains of Abury, in Wiltshire, than in the Thebais of ancient Egypt.

Cæsar expressly says, that the Druids worshipped Mercury, and he doubtless asserted this from having observed in Britain the usual symbols with which Mercury was decorated at Rome, the winged rod with the serpents twined around it. But there was another mode of representing Hermes among the Asiatics, which was equally customary among the Druids; and it is a circumstance of no small moment in this argument. It was by a statue called Herma, which was a sort of square or cubical figure of marble, or brass, without arms or legs to complete the similitude of either human or celestial being. These cubical statues were placed in the vestibules of their temples, and were intended as expressive emblems of the God of Eloquence and Truth, since they were polished squares, on every side equal, which way soever they were turned. Pausanias tells us that the inhabitants of Phares, in Achaia, round the statue of their principal divinity Mercury, erected, in the forum of that city, thirty cubics of polished marble, in honour of that deity,

deity, whose symbol was a cube:* and Dr. Borlase, speaking of the veneration of the Druids for the cube, observes, “A cubic was their symbol for Mercury, who, as the Messenger of the Gods, was esteemed the index, or symbol, of TRUTH, always like to itself, as it is with a CUBE.†

There was another very remarkable symbol of Taut, or Mercury, prevalent in Egypt as well as in India. It was the letter T, or, in other words, the cross, or *cruæ Hermis*, in which form we find many of the more ancient pagodas of India, as Benares and Mattra, erected; and many of the old Egyptian statues, as is well known to antiquaries, are represented bearing this symbol in their hand or on their breasts. D’Ancarville and the generality of mythologists explain this symbol as referring to the gross physical worship to which the ancients were so greatly addicted, and as an emblem of Jupiter Generator, or the deity in his creative capacity, in ancient Egypt and India, and which Mr. Bruce frequently met with in his travels through the higher Egypt and Abyssinia. I have elsewhere observed the very singular manner after which the Latin *vulgate*,

* Pausanias in Achaicis, lib. vii. cap. 22.

† Borlase’s Antiquities of Cornwall, p. 82.

and,

and, according to Lowth, probably the ancient copies of the Septuagint, have rendered the original of that passage in Ezekiel ix. 4. *I will set a mark upon their forehead;* rendering it in their version, I will mark them on the forehead with the letter TAU; which affords room to suppose it was a symbol of a more sacred import than is generally imagined in the early patriarchal ages.

Now, it is a fact not less remarkable than well attested, that the Druids in their groves were accustomed to select the most stately and beautiful tree as an emblem of the deity they adored; and, having cut off the side branches, they affixed two of the largest of them to the highest part of the trunk, in such a manner as that those branches, extended on each side like the arms of a man, together with the body, presented to the spectator the appearance of a huge cross; and on the bark, in various places, was actually inscribed the letter Thau. On the right arm was inscribed Hesus, (their Mars,) on the left Belenus, and on the middle of the trunk Tharanis.*

* Consult Borlase, and the express authorities which he adduces for the truth of this curious fact, p. 108.

The testudo also, or lyre of Hermes, so congenial to the celebrated harp of the ancient Britains, that harp with which, Diodorus informs us, the Hyperboreans, in their island near Gaul, perpetually chaunted the praises of Apollo, in a magnificent temple of a circular form, should not be forgotten in this review of the parallel characters and symbols of Hermes and of Buddha.

From the whole weight of evidence collected from the page of history, and from the united voice of tradition, acting together upon the mind of M. Le Clerc, one of the ablest mythologists that ever wrote, it was that writer's decided opinion, that the Theutates of the Gauls, the Hermes of the Greeks, and the Mercury of the Romans, was the same person with the Thoth, or Taut, of Egypt; but a review of peculiar symbols and circumstances above enumerated, and more especially his name being assigned to the same day of the week in the astronomical system of all these respective nations, seems to place the fact beyond future dispute. Whosoever of the Noachidæ, the original prototypal character, of which these are the varied copy, might have been, his designation

signation in antiquity as the God of Merchants and Travellers points him out as the conductor of colonies to distant regions, and the founder of that commercial intercourse among men, which necessarily results from extending the line of civilized society. The learned Bochart, in his *Phaleg*,* strongly contending that the Phœnician deity Hermes was no other than Canaan, the son of Ham, endeavours to prove this point from the very etymon of his name, for Cnaan, or Canaan, signifies *trader*, which is the exact import of the Celtic *Merc*, or *Mercator*. He explains the wings generally drawn and sculptured on the head and feet of this Phœnician deity as allusive to the devotion of that people to navigation and commerce, and symbolical of the sails of those swift vessels that wafted them, in quest of tin, to the remote regions of the Cassiterides, on the coast of Britain. Founded, probably, on ancient traditions respecting his universal agency in the post-diluvian ages, was the pleasant Greek fable recorded by Lucian, in one of his dialogues, who describes this deity as having stolen the trident of Neptune, the arrows of Apollo,

* *Phaleg*, lib. i. cap. 2.

the sword of Mars, the forceps of Vulcan; and the girdle of Venus.*

Independently, however, of mythological symbols, and those religious rites, upon the discussion of which I shall enter at large in the next section, the hypothesis for which I contend is farther confirmed by the very striking similitude of certain civil festive customs immemorially established in these islands to those at this day flourishing in the East; customs of which the antiquary has in vain endeavoured in Western climes to explore the origin or account for the institution.

THE FIRST OF APRIL,
OR THE ANCIENT FEAST OF THE VERNAL
EQUINOX, EQUALLY OBSERVED IN IN-
DIA AND BRITAIN.

THE first of April was anciently observed in Britain as a high and general festival, in which an unbounded hilarity reigned through every order of its inhabitants; for the sun at that period of the year entering into the sign Aries, the new year, and with it the season of rural sports and vernal delight, was then supposed to have commenced. The proof of the

* See the dialogue of Vulcan et Apollo.

great antiquity of the observance of this annual festival, as well as the probability of its original establishment in an Asiatic region, arises from the evidence of facts afforded us by astronomy, which shall presently be adduced. Although the reformation of the year by the Julian and Gregorian calendars, and the adaptation of the period of its commencement to a different and far nobler system of theology, have occasioned the festival sports, anciently celebrated in this country on the first of April, to have long since ceased; and although the changes occasioned, during a long lapse of years, by the shifting of the equinoctial points, have in Asia itself been productive of important astronomical alterations as to the exact æra of the commencement of the year; yet on both continents some very remarkable traits of the jocundity, which then reigned, remain even to these distant times. Of those preserved in Britain, none of the least remarkable or ludicrous is that relic of its pristine pleasantry, the general practice of making APRIL FOOLS, as it is called, on the first day of that month; but this Colonel Pearce, in a paper published in the second volume of the Asiatic Researches, has proved
to

to have been an immemorial custom among the Hindoos, at a celebrated festival holden about the same period in India, which is called the Huli festival. I shall insert the account in the Colonel's own words: "During the Huli, when mirth and festivity reign among Hindoos of every class, one subject of diversion is to send people on errands and expeditions, that are to end in disappointment, and raise a laugh at the expense of the person sent. The Huli is always in March, and the *last day* is the general holiday. I have never yet heard any account of the origin of this English custom; but it is unquestionably very ancient, and is still kept up even in great towns, though less in them than in the country: with us, it is chiefly confined to the lower class of people, but in India high and low join in it, and the late Suraja Doulah, I am told, was very fond of making Huli fools, though he was a Mussulman of the highest rank. They carry the joke here so far, as to send letters making appointments, in the name of persons, who, it is known, must be absent from their house at the time fixed upon; and the laugh is always in proportion to the trouble given."*

* Asiatic Researches, vol. ii. p. 334.

The least inquiry into the ancient customs of Persia, or the minutest acquaintance with the general astronomical mythology of Asia, would have taught Colonel Pearce, that the boundless hilarity and jocund sports prevalent on the first day of April in England, and during the HULI festival of India, have their origin in the ancient practice of celebrating with festival rites the period of the vernal equinox, or the day when the new year of Persia anciently began. I have added, below, the order of the Indian months, as they are enumerated by Sir William Jones himself, in the Asiatic Researches, and have added the English names of our corresponding months, and translations of the Sancreet appellations of the asterisms.

Aswin,	<i>April;</i>	}	Mesh,	<i>Ram.</i>	4
Carti,	<i>May;</i>		Vrish,	<i>Bull.</i>	
Agrahayan,	<i>June;</i>		Mit'hun,	<i>Twins.</i>	
Paush,	<i>July;</i>		Carcat,	<i>Crab.</i>	
Magh,	<i>August;</i>	}	Sinh,	<i>Lion.</i>	8
P'halgun,	<i>September;</i>		Canya,	<i>Virgin.</i>	
Chaitr,	<i>October;</i>		Tula,	<i>Balance.</i>	
Vaisac'h,	<i>November;</i>		Vrischic,	<i>Scorp.</i>	
Jaisht'h,	<i>December</i>	}	Dhan,	<i>Bow.</i>	12
Ashar,	<i>January;</i>		Macar,	<i>Capric.</i>	
Sravan,	<i>February;</i>		Cumbh,	<i>Aquar.</i>	
Bhadr,	<i>March;</i>		Min,	<i>Fish.</i>	

The

The Indians now, indeed, begin their year on the eleventh of April, and the Persians have adopted, in their civil concerns, the Mohammedan mode of computation; but both nations probably, in the remote ages to which we allude, began their year when the Sun entered into the sign Aries, and the ancient Persian coins stamped with the head of the Ram, which, according to D'Ancarville, were offered to Gemshid, the founder of Persepolis, and first reformer of the solar year among the Persians,* are an additional demonstration of the high antiquity of this festival. It is still observed, in that country, under the title of NAURAS, a word which means, the first day of the year: and in the "Ambassador's Travels," the writer acquaints us, that some of their body being deputed to congratulate the Shah, on the first day of the year, "they found him at the palace of Ispahan, sitting at a banquet, and having near him the MINATZIM, or astrologer, who rose up ever and anon, and taking his astrolabe, went to observe the sun; and, at the very moment at the sun's reaching the equator, he published aloud the new year, the com-

* See D'Ancarville, vol. iii. p. 115; and Jones's Short History of Persia, p. 41.

mencement of which was celebrated by the firing of great guns both from the castle and city walls, and by the sound of all kinds of instruments.”*

The Persian and Tartar monarchs, sitting on the throne of India, still preserved inviolable a custom which probably had its origin when the first great dynasty of the Pishdadian line, of which Caiumeras was the head, extending their sway over the greater part of Asia, and we have astronomical proof, that the vernal equinox could not have co-incided with the first degree of Aries later, at least, than two thousand five hundred years before Christ, which might be the precise period when the first colonies began to migrate from Asia towards the west, and very much builds up the hypothesis for which I contend, of the English being derived from an Asiatic festival. That entertaining and judicious writer, Sir Thomas Roe, was ambassador from our Court to that of Delhi, when the Nauruz festival was celebrated there in 1616, and his account of it, as well as that of the ceremony of weighing the Mogul on his own birth-day, are so curious, and the tract itself withal so

* Ambassador's Travels, p. 220, Edit. folio, 1662.

scarce, that I shall be easily pardoned by my readers for presenting them with an authenticated account of the unequalled magnificence of a court, once the most splendid and powerful in Asia, but now utterly degraded, and its pomp extinguished. The festival at Delhi lasted nine days, and a kind of fair, like that holden at Venice during the carnival, and probably copied from this ancient Eastern kind of festival, during the extensive commercial intercourse formerly carried on between the Venetians and India, seems to have been the principal amusement.

“The Nauruz, in India, is kept in imitation of the Persian festival of that name; and is celebrated after the following manner. A throne is erected four feet from the ground in the *Durbar* court; from the back whereof to the place where the king comes out, a square of fifty-six paces in length, and forty-three in breadth, is railed in, and covered with fair canopies of cloth of gold, silk, or velvet, joined together, and held up with canes covered after the same manner. The ground is laid with good Persian carpets very large, into which place come all the men of quality to attend the king, except some few that are within a little rail right before the

the

the throne to receive his commands. Within this square there were set out, for shew, many little houses, one of them of silver, and some other curiosities of value. The prince-sultan had on the left side a pavillion, the supporters whereof were covered with silver, as were some of those also near the king's throne. The form of this throne was square, the matter, wood inlaid with mother-of-pearl, borne up with four pillars, and covered with cloth of gold. About the edge, over head, like a valance, was a net fringe of good pearl, from which hung down pomegranates, apples, pears, and such fruit of gold, but hollow. Within it, the king sat on cushions very rich in pearls and jewels. Round about the court before the throne, the principal men had erected tents, which encompassed the court, and lined them with velvet, damask, or taffety, for the most part, but some few with cloth of gold ; into which they retired, and sat to shew all their wealth. For anciently the kings used to go to every tent, and take thence what they pleased ; but now it is changed, the king sitting to receive what new-year's gifts are brought him.”*

* See Sir Thomas Roe's Journal, apud Harris, vol. i. p. 630.

The new-born Sun, and the birth-day of the Persian monarch, the son of the Sun, and his representative on earth, were festivals attended with rites too similar not to be noticed in a work discussing the mythological antiquities of Asia. Nothing can be more brilliant, or more truly detailed, than that festival, as related by the same author. It may serve as an awful lesson to imperial pride: for the grandeur described, and the dynasty itself, are now annihilated.

“ The second of September was the king’s birth-day, and kept with great solemnity. On this day the king is weighed against jewels, gold, silver, stuffs of gold, silver, and many other rich and rare articles, of every sort a little, which is all given to the Brahmins. He was so splendid in jewels, that I own in my life I never saw such inestimable wealth together. The time was spent in bringing his greatest elephants before him; some of which, being lord-elephants, had their chains, bells, and furniture of gold and silver, with many gilt banners and flags carried about them, and eight or ten elephants waiting on each of them, clothed in gold, silk, and silver. In this manner about twelve companies passed by most richly adorned, the first having
all

all the plates on his head and breast set with rubies and emeralds, being a beast of wonderful bulk and beauty. They all bowed down before the king, making their reverence very handsomely : this was the finest shew of beasts I ever saw. The mogul himself was sitting cross-legged on a little throne, all covered with diamonds, pearls, and rubies. Before him a table of gold, and on it about fifty pieces of gold plate, all set with jewels, some very great and extremely rich, some of them of less value, but all of them almost covered with small stones. His nobility about him in their best equipage whom he commanded to drink merily several sorts of wine standing by in great flaggons. On a sudden the king rose, we retired to the *Durbar*, and sat on the carpets, attending his coming out. Not long after he came, and sat about half an hour, till his ladies at their door had mounted their elephants, which were about fifty, all of them richly adorned, but chiefly three with turrets on their backs all enclosed with grates of gold wire to look through, and canopies over of cloth of silver. Then the king came down the stairs with such an acclamation of Health to the king! as would have out-roared cannon. At the foot of the stairs, where I met him, and
 shuffled

shuffled to be next, one brought a mighty carp; another a dish of white stuff, like starch, into which he put his finger, and touched the fish, and so rubbed it on his forehead; a ceremony used presaging good fortune. Then another came and girt on his sword and hung on his buckler set all over with diamonds and rubies, the belts of gold suitable. Another hung on his quiver with thirty arrows, and his bow in a case, being the same that was presented by the Persian ambassador. On his head he wore a rich turban with a plume of herons' feathers, not many, but long. On one side hung a ruby unset, as big as a walnut; on the other side a diamond as large; in the middle an emerald like a heart, much bigger. His staff was wound about with a chain of great pearl, rubies, and, diamonds drilled. About his neck he wore a chain of three strings of most excellent pearl, the largest I ever saw. Above his elbows, armlets set with diamonds, and on his wrist three rows of several sorts; his hands bare, but almost on every finger a ring. His gloves, which were English, stuck under his girdle. His coat of cloth of gold without sleeves, upon a fine *semain*, as thin as lawn. On his feet a pair of buskins embrodered with pearl, the
toes

toes sharp and turning up. Thus armed and accoutred he went to the coach that attended him, with his new English servant, who was clothed as rich as any player and more gaudy, and had broke four horses, which were trapped and harnessed in gold velvets. This was the first coach he ever sat in, made by that sent out of England, so like that I knew it not but by the cover, which was a Persian gold velvet. He sat at the end, and on each side went two eunuchs, who carried small maces of gold set all over with rubies, with a long bunch of horse-tail to slap the flies away. Before him, went drums, base trumpets, and loud music, many canopies, umbrellas, and other strange ensigns of majesty, made of cloth of gold, set in many places with rubies. Nine led horses, the furniture of some garnished with rubies, some with pearls and emeralds, some only with studs enamelled. The Persian ambassador presented him with a horse. Next behind came three palankins, the carriages and feet of one plated with gold, set at the ends with stones, and covered with crimson velvet embrodered with pearl, and a fringe of great pearl hanging in ropes a foot deep, a border about it set with rubies and emeralds. A footman carried a foot-stool

stool of gold set with stones. The other two palankins were covered and lined only with cloth of gold. Next followed the English coach newly covered and richly adorned, which he had given to Queen *Normahall*, who sat in it. After them a third, in which sat his younger sons. Then followed about twenty elephants-royal, led for him to mount, so rich in stones and furniture, that they glittered like the sun. Every elephant had sundry flags of cloth of silver, gilt satin, and taffety.*

To return from this short digression to the symbols and monuments remaining in the East plainly allusive to this festival. It, doubtless, arose from this circumstance, that the ancient Egyptians, as Eusebius informs us, at Elephantine, worshipped the figure of a man painted *blue*, to mark his celestial origin, having the head of a ram, and the horns of a goat, which encompassed a disk, designating hereby the solar and lunar conjunction in the sign Aries. This, in fact, is the true Jupiter Ammon of antiquity, whose symbol was a ram; and he was thus portrayed on the Egyptian zodiac long before the

* See Sir Thomas Roe's Journal, apud Harris, vol. 1. p. 644.

Greeks arrogated to themselves the honour of being the inventors of the astronomical asterisms.

Dr. Stukely, in his *Abury*, p. 68, is of opinion, that the four solar ingresses into the cardinal points have been observed as the seasons of public sacrificing from the creation of the world; and, in reality, history acquaints us, that the four grand solemnities or general sacrifices of the Druids were at the equinoxes and the solstices. None, however, was celebrated with greater festival pomp than the vernal equinox, for it was at that period, the first of April, old style, that the Arch-Druid, arrayed in stole of virgin white, to denote unsullied chastity, the sacred *anguinum*, or druid-egg, incased in gold, suspended around his neck, bearing in one hand the mystical rod or staff, equally used by the Brahmins of India and the Magi of Persia, and elevating in the other, the golden sickle, issued forth in solemn procession to gather the sacred, wonder-working *all-healing* MISLETOE from its parent oak; under the expansive shade of whose branches the victims were sacrificed, and the festive rites commenced. Knowing the veneration entertained in India for the bovine species,

we could scarcely believe, that a race, descended, as I contend, from the Brahmins, or at least educated in the school of Brahma, could then immolate, as was the constant custom of the Druids after gathering the mistletoe, two white bulls that had never borne the yoke, did we not know that both the Brahmins and the Persians were anciently addicted to the GOMEDHA JUG, or sacrifice of the bull, in honour of the Sun. Nor can we wonder that the mistletoe, thus gathered, was afterwards offered to Taranis, or Jupiter; that deity who was supposed to preside in Aries, as the guardian genius of the constellation, and whose symbol, we have just observed, was the ram.

Mr. Volney, with that determined spirit of scepticism which distinguishes his writings, contends that the feast of the Jewish pass-over, when the paschal lamb was sacrificed, derived its real origin, not from the awful event recorded in Scripture, but from the ancient Egyptian custom of observing with festival rites the period when the Sun arrives at the equinoctial line, and the Hebrew word PASCHA, which certainly signifies *passage*, he interprets as descriptive merely of the Sun's passing from one hemisphere into

into the other. The ancient Jews and their modern descendants undoubtedly kept, and do keep, this most solemn festival at the vernal equinox, beginning it on the evening of the fourteenth of the month Nisan, and continuing it in March, for seven days afterwards, including the twentieth, on which day the Sun actually reaches the equinoctial line. But, independently of the solemn asseveration of Holy Writ as to the origin and design of the passover, the national records of the Hebrews, and their continued observation of it during so many ages, with rites peculiar and appropriate to the professed intention, rites not otherwise to be accounted for, are unanswerable proofs of the divine origin of that institution among them. With equal confidence and impiety he distorts the expressions, so often occurring in Scripture, of the Lamb of *God*, of the coming of the Redeemer, and the regenerator of a fallen world, referring them to an astronomical origin, and the millennium of Christians to that auspicious period when the grand *αποκαταστασις* shall take place; after the Sun shall have travelled through the zodiacal asterisms, and begin the new *Annus Magnus* in the first degree of the sign Aries.

There is, also, another annual festival, celebrated on the same day in both countries, which opens a not less extensive and curious field for inquiry; and as the investigation will lead to a display of Oriental manners, founded on astronomical speculation, I shall discuss the subject at some length.

This festival was observed with ceremonies wonderfully similar in countries so remote as Britain and India; for although I do not recollect that Mr. Knight on the ancient Phallic worship has noticed the fact, yet the reader may rest assured, that, on the FIRST OF MAY, when the Sun enters, into the sign Taurus, Englishmen unknowingly celebrate the Phallic festival of India and Egypt; and he will, perhaps, be convinced of this, when he shall recollect what was intimated in a former volume of the *Indian Antiquities*, that the Greek word *φαλλος* signifies a *pole*, and the splendid decoration of golden crowns, which, somewhat after the manner of the gilded salvers and tankards suspended around the English pageant, adorned that *φαλλος*, anciently displayed to public view in the Egyptian festival there alluded to.

THE FIRST OF MAY EQUALLY REGARDED
AS A PHALLIC FESTIVAL IN INDIA
AND IN BRITAIN.

WHEN we reflect that owing to the precession of the equinoxes, after the rate of seventy-two years to a degree, a total alteration has taken place through all the signs of the ecliptic, insomuch that those stars which formerly were in Aries have now got into Taurus, and those of Taurus into Gemini; and when we consider also the difference before-mentioned, occasioned by the reform of the calendar, we shall cease to wonder at the disagreement that exists in respect to the exact period of the year on which the great festivals were anciently kept, and that on which, in imitation of primæval customs, they are celebrated by the moderns. Now the vernal equinox, after the rate of that precession, certainly could not have coincided with the first of May less than four thousand years before Christ, which nearly marks the æra of the creation, which, according to the best and wisest chronologers, began at the vernal equinox, when all nature was gay and smiling, and the earth arrayed in its loveliest verdure, and not, as others have

have imagined, at the dreary autumnal equinox, when that nature must necessarily have its beauty declining, and that earth its verdure decaying. I have little doubt, therefore, that May-day, or at least the day on which the Sun entered Taurus, has been immemorially kept as a sacred festival from the creation of the earth and man, and was originally intended as a memorial of that auspicious period and that momentous event.

Independent, however, of any particular allusion to that primæval event, which, after all, is but conjecture, the bull being in the East the universal emblem of the supreme generative power that made the world, the period of the Sun's ingress into that sign could scarcely fail of being regarded with peculiar honours by a race involved in the depth of a gross physical superstition and devoted to the Phallic worship. On the lofty eminences of the Carns, that were extended in a line over the whole coast near which the Druids resided, and which were conspicuously raised in sight of each other, it was their custom, on May-eve, to light up prodigious fires which illumined the whole region round about. These fires were in honour of Beal, or Bealan, the Irish and Celtic

Celtic word for the Sun ; and hence it arose, that Bealteine is still used for May-day by the Highlanders of Scotland.

Two of these fires, according to Toland, were kindled on May-day in every village of the nation, between which the men and beasts to be sacrificed were obliged to pass ; one of them being kindled on the Carn, and the other on the ground.* These fires were supposed to confer a sanctity upon those who passed through them, as was the intention in the rites of Mithra, when the candidate for initiation was alternately plunged in baths of fire and water at once to try his resolution and to *purify* him ; a word derived from this very custom, for *πυρ* is the Greek term for *fire*. The ancient and barbarous custom of the Phœnicians in making their children pass through the fire to Moloch, is by this practice of the Druids irresistibly brought to our recollection ; and, as we know that they worshipped the Sun under the title of Moloch, so we are as certain that that worship and this rite were derived to them from their Eastern ancestors.

On the general devotion of the ancients to the worship of the Bull I have had frequent

* Hist. of the Druids, vol. i. p. 71.

occasion to remark; and more particularly in the Indian History, by their addiction to it at that period,

————— *Aperit cum cornibus annum*
Taurus, —————

“when the BULL with his horns opened the vernal year.” I observed that all nations seem anciently to have vied with each other in celebrating that blissful epoch; and that the moment the sun entered the sign Taurus, were displayed the signals of triumph and the incentives to passion; that memorials of the universal festivity indulged at that season are to be found in the records and customs of people otherwise the most opposite in manners and the most remote in situation; I could not avoid considering the circumstance as a strong additional proof that mankind originally descended from one great family, and proceeded to the several regions in which they finally settled from one common and central spot; that the Apis, or sacred bull of Egypt, was only the symbol of the Sun in the vigour of vernal youth; and that the bull of Japan, breaking with his horn the mundane egg, was evidently connected with the same bovine species
of

of superstition, founded on the mixture of astronomy and mythology.

It is remarkable, that one of the most solemn feasts of the Hindoos, called that of Auruna, the day-star, falls on the sixth day of the new moon in May, and is dedicated, says Mr. Holwell, to the Goddess of Generation, who is worshipped when the morning-star appears, or at dawn of day, for the propagation of children, and to remove barrenness. On this day, he adds, presents are usually made by parents to their sons-in-law, in token probably of the holy nuptial rite, and the day ends with a banquet. This ancient custom of making presents to friends, and relatives, and great men, on the first day of the new year, has descended down to our own times, and the *new-year's gift* exhibits to us another remnant of Asiatic hilarity imitating the bounties of nature at the vernal season.

The same Colonel Pearce, before cited, in a letter published in the Asiatic Researches, thus describes the annual Indian festival holden on the first of May: "I beg leave to point out to the society that the Sunday before last was the festival of Bhavani, (a personification of vernal nature, the Dea Syria of Chaldea, and

and Venus Urania of Persia,) which is annually celebrated by the Gopas and all other Hindoos, who keep horned cattle for use or profit. On this feast they visit gardens, erect a *pole* in the fields, and adorn it with pendants and garlands. The Sunday before last, he adds, was our first of May, on which the same rites are performed by the same class of people in England, where it is well known to be a relic of ancient superstition. It should seem, therefore, that the religion of the East and the old religion of Britian had a strong affinity.”*

Mr. Finch, too,† speaking of the great Meydan or square of Surat, describes what he calls a tall May-pole in the centre, round which, he says, the Hindoos make their pastime on the great festival-days.

To satisfy ourselves that the race who erected the stupendous circular temple of **STONEHENGE** were a tribe of Brachmans, of the sect of **BOODH**, we have only to call to mind the peculiar predominant superstition of that tribe, which, according to Lucian, was the adoration of the Sun, as a secondary deity, in

* See Asiatic Researches, vol. ii. p. 333.

† See his Travels in Harris's Collection, vol. i. p. 84.

a circular dance, expressive of his supposed revolution ; and to attend to the mode after which that sect principally represented their favourite deity.

I have elsewhere observed from Vitruvius, that, in conformity to a notion of the ancients, when erecting temples to the pagan deities, that the properties and functions of the object adored should be attended to, all the temples to the Sun, the Moon, and the other planets, were built in a *circular manner*, because those orbs perpetually revolve in vast circles. Now Diodorus Siculus informs us that there was an island beyond Gaul, as large as Sicily, in which the Hyperborean race adored Apollo in a circular temple, considerable for its size and riches.* “By Apollo,” says one of the best, but not the purest writer of mythology in the present age, “in the language of the Greeks of that day, can be meant no other personage than the SUN;” and he thinks the island can be no other than Britain, which might be known to the Greeks by the vague reports of Phœnician mariners. The circumstance of its being thus particularized, Mr. Knight thinks is a convincing

* Diodorus Siculus, lib. ii. p. 130.

proof of the magnitude and celebrity of this structure ; and he is of opinion, that STONEHENGE was the identical temple here alluded to. This remark of Mr. Knight is perfectly congenial with my own sentiments on the subject, and I mean in a future page to give the whole passage, at length, from Diodorus, with such strictures upon what precedes and follows it as I conceive will place the fact beyond dispute. That Gentleman's consequent observation that the large obelisks of stone, found in many parts of the North, such as those at RUDSTONE, described in the fifth volume of the *Archæologia*, and those near BURROUGHBIDGE, delineated in Stukeley's *Itinerary*, and now called the Devil's Arrows, are vestiges of the same religion, is made with equal judgement ; and evinces the writer's intimate knowledge of the earliest superstitions of the East.*

That the Druids not less than the Brachmans adored the Sun in a circular dance, is not only evident from the following passages in *Athenæus* and *Pliny*, but from many others in *Toland's History of the Druids*, and may be proved from similar practices at this

* Mr. Knight on the Phallic Worship, p. 115.

day existing in the Hebrides, and many places where those Druids took up their favourite though secluded residence. Athenæus tells us that the ancient Gauls, “when they worshipped their Gods, turned round on the right hand,”* imitating thereby the apparent motion of the heavens from east to west, and the radiant march of the stars. Pliny confirms this account, by expressly saying, “that the Gauls, contrary to the practice of the Romans, who were accustomed in their devotions to turn the body quite round from left to right, imitating thereby the course of the sun and planets, always turned round the body, in adorando, from right to left.”† When you worship the Gods, says Plautus, worship turning to the right hand. *Si deos salutas dextro versus censeo.*‡ It is a curious fact, and by no means to be omitted in this place, that the ancients, not less than the moderns, made the festive goblet circulate according to the course of the sun, of which no stronger nor more authentic testimony need be brought than that of old Homer himself, who des-

* Athenæus, lib. iv. p. 152.

† Plin. Hist. Nat. lib. xxviii. cap. 2.

‡ Plautus, act. i. scene i. verse 70.

cribes the immortals as quaffing their nectar in this order ; for Vulcan, when he carries the goblet round, goes round *ενδεξια*,* by the right hand, not merely with dexterity, or nimbly, as the translators render it, but to imitate the course of the planet who matures the genial grape. Had Pope been like Homer, *vinosus*, he would have noticed this ; but Pope was not celebrated for his hospitalities.

For the fuller information of the reader on this subject, I must beg his attention to the following account of the sacred astronomical dance of the ancients in a former volume. “ Besides these dances, there existed in antiquity a solemn and measured dance, more particularly instituted by the astronomical priests, which imitated the motion of the sun and planets, in their respective orbits. This dance was divided into three parts, the *strophe*, the *antistrophe*, and that which was called *stationary*, or slow and scarcely-perceptible motion before the altar. In the *strophe*, they danced from the right hand to the left, by which motion, Plutarch is of opinion, they meant to indicate the apparent motion of the heavens, from east to west: in the anti-

* Homeri Iliad. lib. i. v. 597.

strophe, they moved from the left to the right, in allusion to the motion of the planets, from west to east; and, by the slow, or stationary, motion before the altar, the permanent stability of the earth. It was in the last situation that the ἐπωδή, or *ode after the dance*, was sung. I cannot, however, avoid being of opinion, that the ancients knew something more of the true system of astronomy than this, and that, by the slow stationary, or hardly-perceptible, motion before the altar, they intended to denote either the revolution of the earth upon its axis, or else the *solstitial period*."

The RAAS JATTRA, or circular dance, of the Indians, an account of which follows the above quotation, will demonstrate the truth of Lucian's assertion in regard to its existence among the Brachmans; and how much the Druids were devoted to this species of worship we shall presently learn from the proofs adduced, as well from ancient as modern times, in the page of their historian, Mr. Toland.

In the isles of Scotland, he informs us, at this day the vulgar still shew a great respect for the Druids' houses, and never come to the ancient sacrificing and fire-hallowing
carns,

carns, but they walk three times round them, from east to west, according to the course of the sun. This sanctified tour, or round by the south, is called *Deiseal*, as the unhallowed contrary one by the north *Tuapholl*. The first is derived from *Deas*, or *Dess*, the right-hand, and *Soil*, one of the ancient names of the Sun: the right-hand in this round being ever next the carn. The Protestants in the Hebrides are almost as much addicted to the *Deiseal* as the Papists: hereby it may be seen how hard it is to eradicate inveterate superstition. This custom was used three thousand years ago, and very probably long before, by their ancestors, the ancient Gauls, of the same religion with themselves.*

The same author acquaints us that the inhabitants of Lewis, one of the largest of the western isles, still practise this circular species of worship; bowing three times, and repeating three solemn prayers, as they morning and evening go in procession round the chapel in which their devotions are performed; and that the common mode of paying respect and homage to benefactors and persons of eminence and dignity, throughout those islands

* Toland's History of the Druids, p. 108.

is three times to turn round them sunways, all the while blessing them, and invoking heaven in their favour.*

We come now to consider after what peculiar manner the sect devoted to Buddha, represented this their favourite deity, which we shall find to be exactly after the manner in which the Druids imaged their deity.

If the reader will be pleased to revert to my concise account of the superstition of BOODH, in a preceding volume of *Indian Antiquities*,† he will there find, that, in the Indian peninsula, this deity was represented by a stupendous stone idol, called the SOMMONACODOM, and that his followers took delight in erecting, to his honour, “temples and high monuments, as if,” says Mr. Knox, in his account of Ceylone there cited, “they had been born solely to hew rocks and huge stones, and lay them up in heaps.” He has been likewise informed, from Norden, that the Egyptian priests resided near the pyramids in square stone cells; and from M. Le Loubere, that the priests of BOODH, in Siam, a supposed colony from Egypt, resided in a

* Ibid. p. 116.

† See the third volume, near the commencement.

kind of convent, consisting of many little cells, ranged in within a large square inclosure, in the middle of which stood the temple. He then adds, certain pyramids stand near and *quite round* the temple.*

Of that secluded race of men, who lived in the hallowed groves and caves of Mona, and erected the stupendous circular structure and the lofty obelisks above referred to, can any description be more pointedly picturesque? But let us inquire more particularly what opinion the Indians themselves entertain of their god BUDDHA. What was the exact period in which he lived? Whom did he marry? Where was he born? Whence did he come?

I am aware that Kæmpfer, speaking of Buddha, boldly asserts him to be the same with the renowned Budia Sakia, whose priests, when Cambyes ravaged Egypt, were driven from that desolated country into every region that would afford them shelter; who, it is said, introduced their idol into China, under the softened name of Fo, since the inhabitants of that vast empire, having neither B nor D in their alphabet, could not

* See the third volume, near the commencement.

pronounce the former harsh appellative ; who gave their god Sommonacodom to the Siamese ; and who, by the ships of the Phœnicians, since the commerce of that people with Britain, for their envied tin, was about that time in its fullest vigour, might easily find a passage into this country. By the former supposition, the original occasion of introducing the ancient Oriental superstitions into Britain is indeed, in some degree, accounted for ; but, in that case, the priests of Mona should be descendants of the old Egyptians, with whom, though in some general points of their religion they may agree, yet to whom, in many of their particular ceremonies and more distinguishing tenets, they are directly opposite. But, besides, this glaring incongruity and innumerable other absurdities in this hypothesis, the æra assigned for the first planting of the Asiatic superstitions in Europe is far too late in the annals of time. We know that the Druid system of religion, long before the time of Cambyzes, had taken deep root in the British isles. The Budia Sakia, mentioned by Kæmpfer was, doubtless, the second Bhood, the usurper of the honours of the first, who, in fact, was one of the most renowned of the

Indian AVATARS, and a brilliant incarnation of the Deity himself. The Druid doctrines and manners are not of an Egyptian stamp; they are altogether those of the patriarchal ages, and have a striking affinity to those of the Scythian and Celto-Scythian tribes, who, in different, but all remote, æras, descending from that great hive, or, as it has been emphatically called, that forge of mankind, the Northern Asia, conquered Denmark, Norway, Sweden, and deluged the half of Europe with a new and hardier race of men. The Scandinavian historians have recorded these invasions; and the conquering chieftain, or rather God in human form, according to the Hindoo system of successive incarnations of the Deity, who led the first legions from the overcharged plains of Scythia, bore the renowned name of WODEN.

Monsieur Mallet, previous to his History of Sweden, presented his patrons with a work which he entitled *Antiquitates Septentrionales*, or Northern Antiquities; and I have presented mine with a work, which I have entitled *Indian Antiquities*. However different in name, in the end it may possibly turn out, that the subjects of our investigation,

tion, at least as far as their primæval manners and early history are concerned, do not so materially vary. In the fourth chapter of that book, the following intelligence is recorded.

“ A celebrated TRADITION, confirmed by the poems of all the northern nations, by their chronicles, by institutions and customs, some of which subsist to this day, informs us, that, in *very early periods*, an extraordinary person, named ODEN, reigned in the North; that he made great changes in the government, manners, and religion, of those countries; that he enjoyed there great authority, and had even divine honours paid him. All these are facts which cannot be contested; but as to what concerns the *original* of this man, the country whence he came, the time in which he lived, and the other circumstances of his life and death, they are so uncertain, that the most profound researches, the most ingenious conjectures relative to them, discover nothing to us but our own ignorance.”*

I have before observed, that the belief of the Metempsychosis, and the system of EMANATIONS, so ancient and universal in India, has been frequently the occasion of introdu-

* Mallet's Northern Antiquities, p. 58.

cing, upon the theatre of human transactions, personages upon whom, on account of similarity of genius or talents, though flourishing in ages very remote from each other, they bestowed one common name. This circumstance has given birth to a multitude of imaginary Zoroasters and Orpheuses, and this has doubtless been the real cause, that on two persons, living in very different periods of the Indian and Scythian empires, the distinguished denominations of BOODH and WODEN have been conferred. The etymology of the name Sacya, or Sakia, according to Sir William Jones, is to be found in a Sanscreet word signifying a *feeder on vegetables*, and the term BUDDHA, or Boodhist, means, in general, a *sage or philosopher*. Well aware how important a point it was to fix as nearly as possible the æra of the original BOODH, Sir William has bestowed upon the investigation a considerable portion of that indefatigable industry, which he has so honourably to himself, and with so much advantage to Oriental literature, employed upon Indian subjects. A similar conviction of the importance of that point has induced me, in another place, to extend and amplify his observations, and to collect together all the circumstances to be met with in
antiquity

antiquity that might throw any light on the character and æra of the Egyptian Hermes, or Anubis, who was *indubitably* the same person with the elder Boodh of India. The reader will find the result of my inquiries stated in the history of the ninth incarnation of Veeshnu, under the name and form of Boodh. For the present, it will be sufficient to remark, that, according to the BHAGAVAT-AMRITA, or cream of the Bhagavat, a commentary, written by a learned Goswani, of good authority, the prior Boodh appeared on earth *towards the commencement of the Cali Yug*, or present age; and, what is extremely to our purpose, that he married ILA, *whose father was preserved in a miraculous ark from an universal deluge*.* Now it is a very remarkable fact, and singularly corroborative of the Indian as well as sacred records, that Noah himself is called Ilus in the Phœnician History of Sanchoniatho; for Χρῶνος, or Noah, is there represented as the son of Οὐρανός and Γῆ, or *Heaven and Earth*, allusive to his being the first man after the deluge; and Chronus and Ilus are terms throughout that history used as synonymous.†

* Asiatic Researches, vol. ii. p. 376.

† See Bishop Cumberland's Sanchoniatho, p. 29. et seq.

I must here, therefore, again request the reader to observe, that as I have all along contended for a prior Buddha, existing in the first ages of the post-diluvian world, and one of the immediate descendants of Noah, throughout the whole of this Dissertation I also allude to the first, or *God Woden*, immemorially canonized through all the regions of the Northern Asia, the true hyperborean Mars, and not to that renowned Scandinavian conqueror of later periods who assumed his name and arrogated his rites, that common artifice of the times in which he flourished, to inspire his followers with the deeper respect. In another part of his learned work Mr. Mallet remarks; “I will not answer for the truth of the account given of the original of this God-man; I only suspect that at some period of time, more or less early, either he, or his fathers, or the authors of his religion, came from some country of Scythia, or from the borders of Persia. I may add, that the God, whose prophet or priest he pretended to be, was named ODIN, and that the ignorance of succeeding ages confounded the Deity with his priest, composing, out of the attributes of the one and the history of the other, a gross medley, in which we can at present

present distinguish nothing very certain. New proofs of this confusion will occur in all we shall hereafter produce on this subject ; and it will behove the reader never to lose sight of this observation.”*

In fact, both this author’s subsequent relation, and all other genuine accounts of the ancient superstitious doctrines and rights of the northern nations, invariably tend to confirm the hypothesis of their Asiatic original. The EDDA itself is little more than a collection of Indian mythological fables, relative to the origin of the world ; the chaos ; the impregnating spirit ; the good and evil race ; the contests of the giants ; the inundation of the globe, &c. &c. This very writer, after a large extract from that book, and the ancient Runic poem, called VOLUSPA, confirms my argument in the following remarkable comment.

“ It is easy to trace out in this narration vestiges of an ancient and general tradition, of which every sect of paganism hath altered, adorned, or suppressed, many circumstances, according to their own fancy, and which is now only to be found intire in the books of

* Mallet’s Northern Antiquities, p. 68. et seq.

Moses. Let the strokes we have here produced be compared with the beginning of Hesiod's Theogony, with the mythology of some Asiatic nations, and with the book of Genesis, and we shall instantly be convinced, that the conformity which is found between many circumstances in their recitals cannot be the mere work of chance. Thus, in the Edda, the description of the chaos; that vivifying breath which produces the giant Ymer; that sleep during which a male and female spring from his sides; that race of the sons of the gods; that deluge which only one man escapes with his family, by means of a bark; that renewal of the world which succeeds; that first man and first woman created by the gods, and who receive from them life and motion: all this seems to be only remains of a more ancient and more general belief, which the Scythians carried with them when they retired into the North, and which they altered more slowly than the other nations. One may discover also in the very nature of these alterations the same spirit of allegory, the same desire of accounting for all the phenomena of nature by fictions, which hath suggested to other nations the greatest part of

of the fables with which their theology is infected.”*

The sublime notions of the deity inculcated in the Baghvat Geeta, and the Indian and Persian doctrine of subordinate intelligences guiding the revolving orbs, governing the world, and presiding over the elements of nature, are all discovered in their system of theological belief, as detailed by M. Mallet; and his representation of their ancient worship in vast forests, and uncovered shrines, forcibly brings to our recollection the wide-spreading banian-tree of India, the solemn groves of Mona, and the open temples of Stonehenge and Abury. “ Their religion forbade them to represent the divinity under any corporeal form. They were not even to think of confining him within the inclosure of walls, but were taught that it was only within woods and consecrated forests that they could serve him properly. There he seemed to reign in silence, and to make himself felt by the respect which he inspired. It was an injurious extravagance to attribute to this deity a human figure, to erect statues to him, to sup-

* Mallet's Northern Antiquities, p. 108.

pose him of any sex, or to represent him by images. From this supreme God were sprung (as it were, emanations of his divinity) an infinite number of subaltern deities and genii, of which every part of the visible world was the seat and temple. These intelligences did not barely reside in each part of nature; they directed its operations; it was the organ or instrument of their love or liberality to mankind. Each element was under the guidance of some being peculiar to it. The earth, the water, the fire, the air, the sun, moon, and stars, had each their respective divinity. The trees, forests, rivers, mountains, rocks, winds, thunder, and tempests, had the same; and merited on that score a religious worship, which, at first could not be directed to the visible object, but to their intelligence with which it was animated. The motive of this worship was the fear of a deity irritated by the sins of men, but who, at the same time, was merciful, and capable of being appeased by prayer and repentance.”*

A very just and ingenious remark of our author follows on the WATER and FIRE

* Mallet's Northern Antiquities, p. 80.

ORDEALS equally in use among the Indian and Northern nations ; for he observes, that, as all the elements were supposed to be animated by an intelligence as incorruptible in its justice as the deity whence it sprang, they thought they had nothing to do but to unite the accused person to one of these divinities, and so oblige it to declare, by the manner of its acting upon him, what judgement it entertained of his innocence. Thus sometimes they cast him into a deep water, tied about with cords : if he sunk, that is, if the Genius of the water received him into its bosom, it declared him to be innocent : if it rejected him, if he swam upon the surface, he was considered as convicted of the crime. It was the same with their fire-ordeals ; and he, who, unhurt, could thrust his hands into iron gauntlets, made red-hot, or could walk, at ease, over burning ploughshares, was concluded to be guiltless. From those Asiatic and Northern regions, in remote æras derived, a similar custom prevailed in Britain ; and Dr. Percy, his translator, remarks, that, long after Christianity was established among the Anglo-Saxons, King Edward the Confessor (a reputed saint) is said to have put his mother to the proof of the burning ploughshares.

shares. And even down to our own times, the WATERY ORDEAL, or proof by swimming, has been employed by the vulgar for the trial of witchcraft, whenever they could find means to put it in practice.*

On the whole, nothing can be more strikingly true than what Pliny, speaking of the ancient Magian superstition, near eight hundred years ago, observed concerning the Druids of Britain; *Britannia HODIE eam (Magiam) attonite celebrat tantis ceremoniis, ut eam Persis dedisse videri possit.*† But, as we have proved the Persians and Indians to have been originally the same race, and the Magi and Brachmans to have belonged to the same grand Eastern school, the hypothesis on which this Dissertation is built is proportionably corroborated by the remark of this ancient writer, and with this remark I conclude the second section.

* Mallet's Northern Antiquities, vol. i. p. 190.

† Plinii Nat. Hist. lib. xxx. cap. 1

SECTION III.

The Subject discussed in the last Section continued, by a farther display and Parallel of the Superstitions of the Druids and Brahmins after the true patriarchal Theology became corrupted.—Worship of rude stones in consecrated Groves and Caverns, and their sanguinary Sacrifices of Men and Beasts.—The horrible human Hecatombs of the more ferocious Druids in Wicker Inclosures.—The Veneration paid to Stones, conical, pyramidal, or placed in circular Heaps, Remains of the ancient solar Superstition, since his Disc, or Rays, were shadowed out under those Emblems.—The greater astronomical Cycles were also thus symbolized, since the Circles are generally formed of Sixty, Thirty, or Nineteen, columnar Stones; the First representing the grand sexagenary Cycle of the Asiatic Astronomers; the Second, the celebrated Druid Age; the Third, the Metonic, or rather Indian, Cycle.—In this Light, and
with

with this Clue, the Author proceeds to consider the most remarkable Druid Monuments of Britain.—The Carns, the Cromlech, the Logan, the Tolmeh, of the Druids, successively described, and mythologically explained.—Stonehenge, a solar Temple; the great Circle the Disc of the Sun; the Number of Stones composing it, including Thirty Impost and Thirty Uprights, Sixty, the sexagenary Cycle; a Cycle first formed in India, but early adopted in China.—The Adytum, or Cove, of Stonehenge, an Oval, representing the mundane Egg, or Universe; its inner Circle of Stones, Nineteen in number.—The grander serpentine Temple of Abury considered.—Serpents ever, in the East, Emblems of astronomical Cycles.—Their mythological History.—The great Circle of Columns at Abury, consisting of One Hundred Stones, represents the Sun's Progress through a Period of One Hundred Years, or a complete Century.—The lesser Circle of Thirty, the Druid Age.—The least of Twelve, the Period

riod of Jupiter's Revolution, which, multiplied by Five, forms in India the great sexagenary Cycle.

HAVING in the preceding sections from the first authority, shewn that the Northern Asia was principally possessed by two great nations, the one polished and literate, and the other barbarous and unlettered; having also shewn the original descent and the accidental mixture of those two nations, and traced the progress towards Europe of the great body of the Scythian, or Celtic, colonies, infected with all the superstitions of the Indian Buddha, or Woden of the North, that renowned, but obscure, character, who flourished at the commencement of the present age, or period, and who married Ila, whose father, according to Sanscreeet annals, was preserved in a miraculous ark from an universal deluge; we come, in the present section, to the consideration of the particular superstitions known to have flourished, during the earliest periods, in these islands; superstitions too congenial with those anciently celebrated in Asia, to allow any doubt of their having been imported by the

earliest Asiatic settlers. The first that demands our attention is their attachment to

THE WORSHIP OF RUDE STONES IN CONSECRATED GROVES; AND THEIR SANGUINARY SACRIFICES OF MEN AND BEASTS.

UPON the commencement of the Theological Dissertation, in the first volume of the Indian Antiquities, I had occasion to remark, from Keysler, that the ancient Indo-Scythians performed their sanguinary sacrifices “under groves of oak of astonishing extent and of the profoundest gloom,”* and I cursorily traced the vestige of those barbarous rites in Gaul and Britain. I also instanced, from Herodotus, their peculiar mode of sacrificing to the rusty cimeter, the symbol of Mars, the god Hesus of the Druids, the victims taken in war; and I adduced more than one instance of similitude which the national manners of Scythia bore to those of the war-tribe of India. Without crediting all the extravagant assertions of Bailly and De Guignes, concerning the unfathomable antiquity of the primitive

* Vol. ii. p. 36.

prototypal race of Asia, who were doubtless Cuthite colonies, at that remote imaginary period, *when the line of the equator passed through the middle of the vast deserts of Tartary, and made the frozen soil of Siberia fruitful*, we may safely allow the martial progeny of Scythia, by intermixture and commerce, to have influenced, in a great degree, the habits and customs of their Indian neighbours, and to have been reciprocally affected by those of the people with whom they thus accidentally communicated. I shall not attempt to ascertain in which region the very peculiar veneration which either nation entertained for sacred forests of immense extent originated; it is sufficient for my purpose that this very striking point of affinity anciently existed between the Tartarian and Brahmin magi. The relentless Diana of the Tauric grove was probably no other than the stern Nareda, or Cali, of the Indians. Their characters are consensaneous, and their rites accord in dreadful unison. With the Scythians, a tall and stately tree, with wide-spreading arms, was the majestic emblem of God; and though Herodotus asserts that they had temples and images, his assertion is not confirmed by any other historian of antiquity. In fact, their temples

consisted only of vast heaps of colossal stones, rudely, if at all, carved ; and in the most unwieldy stone, as well as in the most lofty tree, they, like the Indians, contemplated the image of that Deity, of whom their perverted imaginations conceived the majesty and attributes to be best represented “ by gigantic sculptures and massy symbols.”

While we are treating on this subject of the oaken groves of the Druids, and the abominable sacrifices with which they were contaminated, it is impossible to avoid remarking how widely this very custom of venerating Bætyla, or consecrated stones, and of worshipping under oaks, was diffused in the remotest periods over the whole Oriental world, and in what profound veneration this very tree was holden by the ancestors of the human race. It was under the consecrated oak that God and his holy messengers condescended to hold converse, and to enter into solemn covenants with the patriarchs. “ Abraham,” we read, “ passed through the land to the place of SICHEM, and (ad alloun Moreh) to the OAK-GROVE OF MORET, where the Lord appeared unto him, and said, Unto thy seed will I give this land : and Abraham builded there an altar unto the Lord.” *Gen.* xii. 6. In another part
of

of Holy Writ we are informed, that “ Joshua took a great stone, and set it up in Sechem, under AN OAK, that was by *the sanctuary of the Lord.*” *Joshua*, xxiv. 26. In process of time, however, the Jewish nation, relapsing into the Pagan superstitions, diverted their religious attention from the Deity who covenanted with their father Abraham under the oak, and paid it to the inanimate tree itself. For this conduct they are reproached by the prophet Isaiah:—“ They shall be ashamed of the OAKS which ye have desired, and ye shall be confounded for the groves which ye have chosen.” *Isaiah*, i. 29. This ancient Oriental practice, therefore, of worshipping under, and venerating, the oak, forms another decided feature of affinity in the religion of the two nations, and is an additional evidence of their Asiatic descent.

In respect to that other ancient species of worship, the adoration of stones, whether they were single stones, as that which Jacob anointed and *set up for his pillar, calling the place BETH-EL*, that is, literally, *the house of God*; whether two-fold, like those which were so combined as emblematically to represent the active and passive powers of nature
in

in the generation of all things : whether ternary, as those which were intended to shadow out the three-fold power of the Deity, to create, to preserve, and to destroy ; whether obeliscal, as those which symbolized the solar light ; whether pyramidal, as those which expressively typified the column of ascending flame ; or whether, finally, like the CAIRNS of the Druids, arranged in vast circular heaps, called by the ancients MERCURIAL ; on all these various kinds of adoration, paid, by the infatuated superstition of past ages, to the unconscious block of rude granite, M. D'Ancarville has presented the learned with a most elaborate dissertation, and he expressly denominates this species of worship SCYTHICISM.*

These grotesque and ponderous stones were placed in the centre of the most hallowed groves of the idolatrous Pagans, and it is most probable that they in general placed them, as we find them arranged in the Druid-temple of Stonehenge, in a circular manner ; the SUN being the general object of ancient adoration, whose temples were always erected in a circular form. Like those of the Persians

* D'Ancarville's Preface to *Réscherches sur l'Origine des Arts*, &c. p. 9 and 10.

at Persepolis, they were open at the top; for, like them, the Scythians esteemed it impious to confine the Deity, who pervades all nature, and whose temple is earth and skies, within the narrow limits of a covered shrine, erected by mortal hands.

That profound veneration for rocks and stones of a grotesque form and enormous magnitude, which we have observed M. D'An-carville denominates *Scythicism*, doubtless originated among a race accustomed to behold nature in the rugged dress which she assumes amidst "antres vast," and the abrupt precipices of mountains lofty and stupendous as the great Caucasus, which serves equally as a boundary to Scythia and India. This stone-worship, however, was not confined to the lofty romantic regions in the neighbourhood of the Caucasus. Instead of a statue, the Arabians of Petra worshipped λιθος μελας τετραγωνος, ατολωτης, a black square pillar of stone, without any figure or representation. It was the same deity, says Mr. Bryant, adored by the Germans and Celtæ, called Theutates, whose sacrifices were very cruel.* In the second volume of Indian Antiquities also, I

* Analysts, vol. i. p. 13.

have proved from Pocock, Ludolf, and Bruce, that the same species of worship was widely diffused through the Thebais of Egypt and Ethiopia, whose mountains exhibit scarcely less magnificent and terrific objects than those of the Tauric hills. A Deity was supposed to reside amidst the solitary grandeur of those rugged mis-shapen rocks ; superstition aided a disturbed imagination to give the airy phantom a form gigantic as his imagined temple ; to adorn him with the symbols of vengeance and terror ; and invest him with attributes and properties congenial with their awe and apprehension. Hence it arose, that, with this species of rock-devotion, rites of a sombrous and melancholy nature were perpetually blended ; and that their altars were stained with such torrents of *human* as well as *bestial* blood.

Concerning the sanguinary rites anciently practised in Druid groves, no stronger evidence or more impressive relation can be given, than that before adduced by me from Lucan, of those celebrated in the Massilian grove, which he describes as a place, gloomy, damp, and scarcely penetrable ; a grove in which no sylvan deity ever resided, no bird ever sang, no beast ever slumbered, no
gentle

gentle zephyr ever played, nor even the lightning could rend a passage. It was a place of blood and horror, abounding with altars reeking with the gore of human victims, by which all the trunks of the lofty and eternal oaks, which composed it, were dyed of a crimson colour: a black and turbid water rolled through it in many a winding stream: no soul ever entered the forlorn abode, except the priest, who, at noon, and at midnight, with paleness on his brow, and tremor in his step, went thither to celebrate the horrible mysteries in honour of that terrific deity, whose aspect he yet dreaded more than death to behold.

The British Druids, however, seem to have exceeded, if possible, even their Gaulic neighbours in savage ferocity of soul and boundless lust of sacrificial blood. The pen of history trembles to relate the baleful orgies which their frantic superstition celebrated, when inclosing men, women, and children, in one vast wicker image, in the form of a man; and, filling it with every kind of combustibles, they set fire to the huge colossus. While the dreadful holocaust was offering to their sanguinary gods, the groans and shrieks of the consuming victims were drowned

drowned amidst shouts of barbarious triumph, and the air was rent with the wild dissonance of martial music. However incredible the imputation, it is not without reason suspected that they sometimes proceeded to even more criminal lengths, and finished their horrid sacrifice with a still more horrid banquet. Religion shudders at such a perversion of its name and rites; and humanity turns with horror from the guilty scene! Let us advert to less disgusting traits of ancient Druid superstition; and, having theologically considered their profound reverence for rocks and stones, let us endeavour, if we can, philosophically to account for that curious worship, as I am of opinion a great portion of astronomy was blended with and concealed under it.

THE DRUIDS, LIKE THE ANCIENT INDIAN RACE, WORSHIPPED THE SUN, UNDER THE FORM OF ERECT, CONICAL, AND PYRAMIDAL STONES; THE SYMBOLS OF THE SOLAR BEAM.

THE worship of the Druids was not confined within the gloomy verge of consecrated groves.

groves. The HIGH PLACES, also, or excelsa, anathematized in Scripture, dedicated to Baal and to Astarte the queen of heaven, were greatly in vogue among the ancient priests of Britain. On its loftiest eminences it was their custom to pile up rude irregular heaps of stones, such possibly as those which, in purer devotion, Jacob anointed, and *set up for his pillar*, calling the place BETHEL, or *the house of God*. Many of these sacred Mercurial heaps still remain on the summits of the mountains of Cornwall, Wales, Scotland, and Ireland. Some of them are of immense magnitude, containing, according to Stukely, at least a hundred cart-loads of stones of all sizes. They were called in the ancient Celtic language CARNs, being for the most part of a conical and pyramidal form, with a large flat stone invariably placed on the apex, on which the sacred fires, on the great festivals, were kindled. The Welch still called them Carnedde, which my author, Roland, I have already observed, derives from the Hebrew KEREN NEDII, *a coped heap*, alluding to the shape and figure of these cumuli, which were doubtless intended, like the pyramids of Egypt, and many of the cone-formed pagodas of India,

to

to be symbolical of the ray of the Sun, the god they adored, and the fires occasionally lighted upon their summits indisputably demonstrate this fact. The worship of the Sun in reality was the basis both of the Eastern and Western superstition; and, therefore, if we find obelisks and other erected pillars in Egypt and Asia, so may we naturally expect to discover them in the British isles; and here they *are* found dispersed over the country in the greatest abundance. In the very word obelisk we may trace the Oriental name of the solar deity BAL; known to the Druids by the resembling title of Belenus, their god of fire, and apparent in the term BEALTINE, or the fires that flamed to Baal, all over the country on May-eve.

These obelisks were of various magnitude, height, and disposition. They sometimes consisted of a single stone, one of which in particular is mentioned by Dr. Borlase,* as standing, a short time before he wrote his book, twenty feet in height above the ground, and four feet buried in it. When clove up by the farmer, the owner of the land on which it stood, it made above twenty stone posts for gates. He thinks these rude monuments were

* Analysis, vol. i. p. 162.

the ancient idols of the country. They certainly were sacred, and had a mystical allusion. They were intended to be symbolical of their great deity, the sun, and worshipped as such; they were also probably used as gnomons, to mark the length of the meridian shadow. Sometimes they were combined, as those dedicated to Baal and Astarte, the sun and moon, and those to Jupiter and Juno, Pluto and Proserpine, alluding to the junction of the heavenly bodies, or the marriage of those mythologic deities. Sometimes two stone columns were set up as sepulchral monuments at the head and feet of the person interred; a practice still generally followed in English burying-grounds; and sometimes they were used as termini, as the pillars of Sesostris in Asia, and of Hercules at the ancient Gades; being the limits of his travels westward. Other erections of this kind were ternary, which are the true *Egumia* of antiquity, or symbols of the god Mercury, consisting of two large stones, placed erect, with one laid across their summits. Those huge colossal stones near Kennet, in Oxfordshire, called, from their magnitude, the *Devil's Quoits*, are three in number; and, most likely, have reference to the solar worship. The celebrated pyramidal

dal pillars, before-mentioned, as standing at Burrowbridge, in Yorkshire, are *four* in number, and are justly referred by Mr. Knight to the same source.

These grotesque and ponderous masses of unhewn stone, which, among a barbarous people, were revered as the symbols of deity, were not always pyramidal nor placed in an erect posture. Sometimes they were recumbent, and poised on their own base, as in the case of those immense ovals, which, in Cornwall, are called LOGAN, rocking or bowing stones. These prodigious stones the Druids had the art to persuade their infatuated disciples were inspired with the spirit of the indwelling deity, and to this awful test they brought the supposed criminal, over whose head the sword of justice was suspended, and the descent of which was alone delayed, till the animated mass, as he approached to touch it, by its tremulous motion declared him guilty. On this subject of the logan-stones, I am happy in being able to quote the high authority of Mr. Bryant, whose sentiments so remarkably confirm the hypothesis on which these pages proceed, of the wonderful antiquities, discussed in it, being

being the work of the first colonies that emigrated from Asia.

“It was usual,” says that learned writer, “in those times, with much labour to place one vast stone upon another for a religious memorial. The stones thus placed, they oftentimes poised so equably, that they were affected with the least external force: nay, a breath of wind would sometimes make them vibrate. We have many instances in our own country; and they are to be found in other parts of the world: and, whenever they occur, we may esteem them of the highest antiquity. All such works we generally refer to the Celts and Druids; under the sanction of which names we shelter ourselves, whenever we are ignorant and bewildered. But they were the operations of a very remote age; probably before the time when the Druids, or Celtæ, were first known. I question, whether there be in the world a monument, which is much prior to the celebrated Stonehenge. There is reason to think, that it was erected by a foreign colony; one of the first which came into the island. Here is extant, at this day, one of those rocking-stones, of which I have been speaking.

“The ancients distinguished stones, erected with a religious view, by the name of *Amber*;

by

by which was signified any thing solar and divine. The Grecians called them Πέτραι Ἀμβροσiai; and there are representations of such upon coins. Stonehenge is composed of these Amber-stones: hence the next town is denominated *Ambros-bury*: not from a Roman Ambrosius, for no such person existed; but from the *Ambrosiæ Petræ*, in whose vicinity it stands.”*

In proof of what Mr. Bryant has here so justly observed, there absolutely existed, till destroyed by the rage of Cromwell’s levelling faction, a logan-stone, near Penzance, in Cornwall, of great magnitude and celebrity, called in the Cornish language MAIN-AMBER, to which the inhabitants had for ages paid a kind of superstitious respect. Near Penzance, says Camden, in whose days it existed, there is a very remarkable stone called *Main-Ambre*, which, though it be of a vast magnitude, yet may be moved with one finger: notwithstanding this, no violent exertion can push it from its place. The name is a translation of those *Petræ Ambrosiæ* of antiquity, and a print of it may be seen in Norden’s History of Cornwall.

* Analysis, vol. iii. p. 533.

Near the *Main-Ambre* stands a famous Druidical temple, called *Biscawoon*, consisting of *nineteen* pillars in a circle, with a central *Kebla*. Sir Robert Sibbald mentions these logan-stones as not uncommon in Scotland; and speaking of the rocking-stone near Belvaird, in Fife; “I am informed,” says he, “that this stone was broken by the usurper Cromwell’s soldiers. It was discovered then that its motion was performed by a yoke extuberant in the middle of the under-surface of the upper-most stone, which was inserted in a cavity in the surface of the lower stone.”

The next order of these ancient Druid stones not circular, that deserve notice, are the Cromlech, which are broad flat slabs, placed on high, in a horizontal position, upon others fixed on their edges in the ground, and were plainly intended for what their name imports, an altar for consecrated fire; the Hebrew being *Chæræmluach*, a devoted stone. That these Cromlech were really altars devoted to the solar worship, and not sepulchral monuments only, as Dr. Borlase intimates, though their partial application to that purpose may be allowed, since the most ancient tombs were temples, is evident from what the Doctor himself informs us, relative to one

near Cloyne, in Ireland, which is named from the solar superstition Carig-Croith, *the rock of the Sun*. The Cromlech is generally placed on an eminence: the covering-stones are fixed with the nicest geometrical precision; and, notwithstanding the amazing dimensions of many of them, that of Lanyon, in Cornwall, being forty-seven feet in circumference, and nineteen feet long, have been raised by art to the great elevation at which they are sometimes found.

Traces of this species of stone altars, and the worship performed upon them, are still to be found, according to Mr. Mallet, in all those empires of Europe which are situated nearest to the northern confines of Asia. "We find at this day," says that writer, "in Denmark, Sweden, and Norway, in the middle of a plain, or upon some eminence, altars, around which the ancient inhabitants assembled to offer sacrifices, and to assist at other religious ceremonies. The greatest part of these altars are raised upon a little hill, either natural or artificial. Three long pieces of rock set upright serve as a basis to a great flat stone, which forms the table of the altar. There is commonly a pretty large cavity under this altar, which might be intended to receive
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the blood of the victims; and they never fail to find stones for striking fire scattered round it; for no other fire, but such as was struck forth with a flint, was pure enough for so holy a purpose. Sometimes these rural altars are constructed in a more magnificent manner; a double range of enormous stones surround the altar and the little hill on which it is erected. In Zealand we see one of this kind, which is formed of stones of a prodigious magnitude. Men would even now be afraid to undertake such a work, notwithstanding all the assistance of the mechanic powers which in those times they wanted. What redoubles the astonishment is, that stones of that size are rarely to be seen throughout the island, and that they must have been brought from a great distance.”*

The dimensions of some of the Cromlechs, in Britain, have been mentioned as astonishing; but even those dimensions, vast as they are, are trifling compared with those of the species of Druid stones, called *TOLMEN*, which the indefatigable industry of Dr. Borlase first explored, and which, in his learned volume.

* Mallet's Northern Antiquities, vol. i. p. 126.

will be found extensively commented upon.* What is most worthy of remark here is, that in those TOLMEN, or vast stony recesses, was anciently performed the very same species of superstition alluded to in the second volume of this work; in which a passage through consecrated rocks is described as purifying the votary from the guilt of his crimes, and proved to have been in use in the ancient mysteries celebrated in the caverns of Mithra; the principal entrances into which, as into Stonehenge, Abury, and all other Druid stone temples, was from the NORTH and the SOUTH, called in the Homeric description of the *cave of the nymphs*, commented on and amply explained by Porphyry, the NORTHERN and SOUTHERN GATES. At this very day too something, very much resembling the ancient notion and practice of purification in sacred caverns, continues in vogue among the Hindoos in one of our own settlements. In the island of Bombay, about two miles from the town, rises a considerable hill, called Malabar-Hill, which, stretching into the ocean, by its projection, forms a kind of promontory. At

* See Borlase's *Antiquities of Cornwall* p. 174 and 175.

the extreme point of this hill, on the descent towards the sea-shore, there is a rock, upon the surface of which there is a natural crevice, which communicates with a cavity opening below, and terminating towards the sea. "This place," says an author, to whose printed account of it I was referred for corroborative evidence of its existence, "is used by the Gentoos as a purification for their sins, which, they say, is effected by their going in at the opening below, and emerging out of the cavity above. This cavity seems too narrow for persons of any corpulence to squeeze through ; the ceremony, however, is in such high repute in the neighbouring countries, that there is a tradition, that the famous Conajee Angria ventured, by stealth, one night upon the island, on purpose to perform this ceremony, and got off undiscovered."

CIRCULAR STONE MONUMENTS WERE INTENDED AS DURABLE SYMBOLS OF ASTRONOMICAL CYCLES, BY A RACE WHO REJECTED THE USE OF LETTERS.

AN equal astronomical mystery attended those famous circular stone monuments of
the

the Druids, so numerous in Britain. They were, doubtless, intended to be descriptive of astronomical cycles, by a race, who, not having, or politically forbidding, the use of letters, had no other permanent method of instructing their disciples, or handing down their knowledge to posterity. For the most part, the stone pillars which compose them are found to be *twelve* in number, alluding to the twelve months; and many to consist of *thirty*, in reference to the number of years, which, according to the Druids, formed an age, or generation, and was one of their favourite cycles, or else to that of the days of which the ancient lunar month consisted. It is remarkable, that the circle of stones, forming the grand area of the temple at Abury, according to Stukeley, consists exactly of one hundred stones, in allusion to the century; of the two circular temples, inclosed in that grand area, the outermost is composed of thirty stones, the innermost circle of twelve, with an immense stone in the centre twenty-one feet high, which was indisputably the stupenduous gnomon, or stylus, of that mighty sun-dial. That the Egyptian obelisks were, in the same manner, used as gnomons, I have proved in the third volume of these

Antiquities.

Antiquities, and how much, in general, the Oriental astronomers were accustomed to use astronomical instruments of extraordinary magnitude, is evident from what we read in Greaves's *PYRAMIDOGRAPHIA*, and in Hyde, of the quadrant used by the Persian monarch and astronomer, Ulug Beg, which was as high as the dome of Sancta Sophia, at Constantinople; or one hundred and eighty Roman feet.* Dr. Borlase mentions four of these circles yet remaining in the hundred of Penweth, in Cornwall,† not eight miles asunder, which have nineteen stones each, and he is of opinion they allude to the two principle divisions of the year, the *twelve* months, and the *seven* days of the week. It is, however, my opinion, that the Druids knew, and meant to record by this number, the celebrated cycle of *nineteen years*, supposed to have been first invented by Meton, the Grecian astronomer, but known to the Indians, and entering into their calculations, in the earliest ages of the world, and consequently to their disciples who emigrated to the West.

* See Ulug Beg's Fixed Stars, and Greave's Works, vol. i. p. 80.

† Antiquities of Cornwall, p. 191.

As all circular monuments of this kind, but more especially those consisting of twelve columnal stones, were meant either as representations of the disk of the Sun, or the revolution of his orb through the twelve signs of the Zodiac, so all semi-circular ones shadowed out the lunar phænomena; but such dreadful havoc has been made of these venerable vestiges of Druid superstition, and of their laborious detail in astronomical science, that, in most of them, the exact number of stones, of which they anciently consisted, cannot now be ascertained. Stonehenge, however, may be adduced as a magnificent instance of the former assertion; and there are two others which have an undoubted reference to the lunar devotion, although conceived by some antiquaries to have been formed for the purpose of theatrical exhibition. The one is in Anglesea, the ancient Mona, in a place called Trer Drew, or Druid's Town, a place too sacred for theatrical exhibitions; the other is in Mainland, in the isle of Orkney, and the crescent-like forms of both evince the original purpose of their fabrication. Mr. Toland, in his *History of the Druids*,* confirms this cir-

* *History of the Druids*, vol. i. p. 89, et seq.

cumstance, by saying, that ancient traditions, immemorially preserved on the spot, assert their dedication to the Sun and Moon. Thus we read in that History: “East of Drumeruy, in the isle of Ornan, is a circular temple, the diameter of whose area is thirty paces ; and in the south of the same village another, in the centre of which still remains the altar, consisting of a thin broad stone, supported by three others. In the greatest island of the Orkneys, commonly called Mainland, are likewise two temples near Lockstenis, one of which is by ancient tradition believed to have been dedicated to the Sun and the other to the Moon ; they are each of them surrounded by a trench, like that about Stonehenge ; many of the stones are above twenty or twenty-four feet high, five broad, and one or two thick. Near the lesser temple, stand two stones of the same bigness with the rest, through the middle of one of which is a hole, which served to fasten victims or the wicker collossus, in which crowds of persons were burnt alive. At Biscaw-woon, near St. Burien’s, in Cornwall, is a circular temple, consisting of *nineteen* stones, distant from each other *twelve* feet, having another in the centre much higher than the rest.” The same writer describes

describes a remarkable Druid temple still remaining entire at Harries, one of the Western islands of Scotland, and the most westerly of them all, which exhibits, in its plan, both astronomical science and strong remains of that physical worship to which the ancients were so grossly addicted, as it seems to have been erected to the Sun and the Elements, and in it, he informs us, Apollo, the deity of Classerniss, was adored. The body of this temple consists of twelve obelisks, or columns, placed circularly, about seven feet high, two broad, and six distant from one another, with one thirteen feet high in the centre, shaped like the rudder of a ship, doubtless the gnomon. It has likewise four wings, stretching out from its sides, consisting of four columns each, pointing directly east, south, west, and north, to represent either the four elements, or the four cardinal points as the twelve pillars doubtless were intended to denote the twelve signs of the Zodiac. The avenue, which is north, consists of two rows of columns, of the same size, and is erected at the same distances as the former: the breadth of the avenue is eight feet, and the stones composing each side nineteen in number, a strong additional proof of their acquaintance with

with the ancient Indian cycle of nineteen years.*

STONEHENGE, A STUPENDOUS SOLAR TEMPLE ; THE CIRCLE INDICATES HIS DISK ; AND THE NUMBER OF STONES FORMING IT BEING SIXTY, THE GREAT SEXAGENARY CYCLE OF THE ASIATIC ASTRONOMERS.

BUT, of all the circular temples of the Druids, as STONEHENGE is the most considerable, a description of it, from the most ancient and the most modern writer on that subject, waving all intermediate ones, is here presented to the reader. I take it for granted, that the passage cited by Diodorus, from Hecataeus, and before alluded to by Mr. Knight, is this identical temple of Stonehenge, or CHOIR GAUR, its ancient British name, meaning, according to Stukeley, the *great cathedral* or *grand choir* ; and surely no national church could ever better deserve that distinguished appellation.

Diodorus relates that there is an island to

* History of the Druids, vol. i. p. 90.

the north, or under the Bear, beyond the Celtæ, meaning Gaul, little inferior in magnitude to Sicily, in which the Hyperborean race, as the Greeks denominated all those nations that were situated north of the Streights of Hercules, adored Apollo, as the supreme divinity. That in it was a magnificent consecrated grove with a circular temple, to which the priests of the island frequently resorted with their harps to chaunt the praises of Apollo, who, for the space of *nineteen years*,* (the famous astronomical cycle of the Druids,) used to come and converse with them, and what is more remarkable, they could (as if, says Rowland, they had the use of telescopes, and I believe *they had*) shew the moon very near them, and discover therein mountains and heaps of caverns.* He describes the island as a fruitful and pleasant island, and relates that most of the inhabitants of it were priests and songsters. He adds, that they had a language of their own; and that some Greeks had been in it, and presented valuable gifts to their temple, with Greek inscriptions on them, and that one Abaris came from them to

* Diod. Sic. lib. ii. p. 130.

Greece, and contracted friendship with the Delians. He concludes with saying, that, over their sacred town and temple, there presided a sort of men called Boreadæ, (so denominated by the Grecians of that day,) who were their priests and rulers.

Such is the account given near two thousand years ago of this celebrated temple, for it could mean no other, by Diodorus, the Sicilian, from a writer still prior in time. I shall now, for the benefit of those of my readers who may not be possessed of Stukeley and other expensive writers on the subject, insert the most recent, and, I believe, the most accurate, account of this grand but ruinous fabric extant; it is by Mr. Gough, in the new edition of Camden's *Britannia*.

“STONEHENGE stands in the middle of a fine flat area, near the summit of a hill, and is inclosed with a circular double bank and ditch, near thirty feet broad, the vallum inwards; after crossing which, we ascend thirty yards before we reach the work.

“The whole forms a circle of about one hundred and eight feet diameter, from out to out, consisting, when entire, of sixty stones, thirty upright and thirty imposts; of which remain only twenty-four upright, seventeen standing,

standing and seven down, three feet and a half asunder, and eight imposts.

“ Eleven uprights have their five imposts on them by the grand entrance. These stones are from thirteen to twenty feet high. The lesser circle is somewhat more than eight feet from the inside of the outer one, and consisted of forty lesser stones, (the highest six feet) of which only nineteen remain, and only eleven standing; the walk between these two circles is three hundred feet in circumference. The adytum, or cell, is an oval, formed of ten stones, (from sixteen to twenty-two feet high) in pairs, with imposts, which Dr. Stukeley calls trilithons, and above thirty feet high, rising in height as they go round, and each pair separate, and not connected as the outer pair; the highest eight feet. Within these are nineteen more smaller stones, of which only six are standing. At the upper end of the adytum is an altar, a large slab of blue coarse marble, twenty inches thick, sixteen feet long, and four broad; pressed down by the weight of the vast stones that have fallen upon it. The whole number of stones, uprights, imposts, and altars, is exactly one hundred and forty. The stones are far from being artificial, but were, most probably, brought from those called the

the Grey Weathers, on Marlborough-Downs, fifteen or sixteen miles off; and, if tried with a tool, they appear of the same hardness, grain, and colour; generally reddish. The heads of oxen, deer, and other beasts, have been found in digging in and about Stonehenge; but the human bones our author speaks of only in the circumjacent barrows.

“Dr. Stukeley, in 1723, dug, on the inside of the altar, to a bed of solid chalk, mixed with flints. In the reign of Henry VIII. was found here a plate of tin, inscribed with many letters, but in so strange a character, that neither Sir Thomas Elliott, a learned antiquary, nor Mr. Lilly, master of St. Paul’s school, could make them out. This plate, to the great loss of the learned world, was soon after lost.

“Two stone pillars appear at the foot of the bank next the area in which the buildings stand; and those are answered by two spherical pits, at the foot of the said bank, one with a single bank of earth about it, and the other with a double bank, separated by a ditch.

“There are three entrances from the plain to the structure, the most considerable of which is from the north-east; and at each of them

them were raised, on the outside of the trench, two huge stones, with two smaller within, parallel to them. The avenues to Stonehenge was first observed by Mr. Aubrey. Dr. Stukeley found that it had extended more than one thousand seven hundred feet down to the bottom of the valley, and was raised a little above the Downs, between two ditches. At the bottom it turns off to the right, or east, with a circular sweep, and then in a strait line goes up the hill between two groups of seven barrows each, called the King's Graves. The other branch points north-west, and enters the Cursus. This is half a mile north from Stonehenge, ten thousand feet, or two miles long, inclosed by two ditches, three hundred and fifty feet asunder."

There is no occasion for my troubling the reader with any extended observations on these accounts of STONEHENGE. Whoever has read, or may be inclined to read, my history of the origin of Oriental Architecture, as connected with the astronomical and mythological notions of the ancients, printed in the third volume of this work, and inserted there purposely to serve as his guide in the consideration of the form and ornaments of the sacred fabrics of Asia, during the farther investigation

vestigation of the physical theology of the East, may see most of the assertions realized in the form and arrangement of this old Druid temple. For, in the first place, it is circular, as it is there proved all ancient temples to the Sun and Vesta, or *elementary fire*, invariably were: In the second place, the adytum, or *sanctum sanctorum*, is of an *oval* form, representing the *mundane egg*, after the manner that all those adyta, in which the sacred fire perpetually blazed, the emblem of that vivacious invigorating energy, which, pervading the centre, warms and animates the whole universe, were constantly fabricated: In the third place, the situation is fixed astronomically, as we shall make fully evident when we come to speak of Abury, the grand entrances both of this temple and that superb monument of antiquity being placed exactly *north-east*, as all the *gates*, or portals, of the ancient caverns and cavern-temples were, especially those dedicated to Mithra, that is, the Sun, who rises in the east; and who, in his northern course, sheds his most benign influences, for which reason the Indians exult in dying when the sun is to the north of the equator: In the fourth place, the number of stones and up-rights, making together exactly *sixty*, plainly

alludes to that peculiar and prominent feature of Asiatic astronomy, the SEXAGENARY CYCLE, being entirely of Indian and Chinese invention, and as we shall hereafter shew the multiple of five revolutions of the planet Jupiter, while the number of stones forming the inner circle of the cove being exactly *nineteen*, again displays to us the famous Metonic, or rather Indian, cycle, and that of *thirty*, repeatedly occurring, the celebrated age, or generation, of the Druids: Fifthly, the temple, being uncovered, proves it to have been erected under impressions similar to those which animated the ancient Persians, who rejected the impious idea of confining the Deity, whose temple is earth and skies, within the scanty limits of an inclosed shrine, however magnificent, and therefore consequently, at all events, it must have been erected before the æra of Zoroaster, who flourished more than five hundred years before Christ, and who first covered in the Persian temples, to save from extinction, by the violence of wind and rain, the consecrated fires; and, finally, the head and horns of oxen and other animals, found buried on the spot, prove that the sanguinary rites peculiar to the solar superstition, and more particularly the Gomeda,

medha, or bull sacrifice of India, were actually practised within the awful bounds of this hallowed circle.

ROLLDRICH,
MEANING THE DRUIDS' WHEEL, OR CIRCLE, A SOLAR TEMPLE: THE WHEEL A SACRED EMBLEM IN INDIA, AND ALLUDING TO THE ROTA SOLIS.

THE circular temple next in fame and magnitude to Stonehenge is that called ROLLDRICH, near Chipping - Norton, in Oxfordshire. It is described by Stukeley, in his Abury, as an open temple of a circular form, made of stones set upright in the ground. The columns that compose the circle of this temple, like those of Stonehenge, are rough and unhewn, and the whole bears even stronger marks of age and decay than that venerable pile; for they appeared to our author to resemble worm-eaten wood, rather than stone. The very name of this ancient work, which is in the most ancient British dialect, indisputably proves it to be of Druid original. Camden calls this circle Rolle-rich stones, and it is remarkable that, in a book repositied in the Exchequer,

supposed by Dr. Stukeley to be Doomsday-Book, the name of the adjacent town is stated to be Rollendrich. Now, the term Rollendrich, if rightly spelled, according to the ancient orthography, the Doctor contends should be written Rholdrwyg, which means the *Druids' wheel*, or *circle*.

Dr. Stukeley farther infers this to have been a Druid temple, from the measure on which it is erected. In a letter which he received from Mr. Gale, dated Worcester, Aug. 19, 1719, after that gentleman had visited the antiquity at his request, he acquaints him, that the diameter of the circle was thirty-five yards. The Bishop of London also wrote him word, that the distance, at Stonehenge, from the entrance of the area to the temple itself was thirty-five yards; and that the diameter of Stonehenge itself was thirty-five yards. He supposes this admeasurement not to have been made with mathematical exactness; but observes, when we look into the comparative scale of English feet and cubits, we discern sixty cubits of the Druids is the measure sought for. The diameter of the outer circle of Stonchenge and this circle at Rolldrich is exactly equal. The circle itself is composed of stones of various shapes and dimensions,

set pretty near together. They are flattish, about sixteen inches thick. Originally there seems to have been *sixty* in number, at present there are twenty-two standing, few exceeding four feet in height; but one in the very north point much higher than the rest, seven feet high, five and a half broad. There was an entrance to it from the *north-east*, as is the case at Stonehenge.

To this account of Stukeley I have only to add, from Camden, that the country-people in the neighbourhood have a tradition, that these stones were once *men*, thus transformed; that in the number of stones composing this circle we find again the sexagenary cycle of the Asiatics, and that a *wheel* was equally a sacred symbol in India as with the Druids; the figure of a very large wheel being cut deep on the rock in the very front of the Elephanta pagoda. The wheel was probably an ancient emblem of astronomical cycles; or rather, as a very ingenious friend of mine, Mr. Frere, one of the authors of that extraordinary production of juvenile genius, the Eton Microcosm, judiciously intimated to me, on mentioning the singular circumstance of a *wheel* occurring so often in the antiquities both of India and Britain, it was the *rota solis*
to

to which their peculiar superstition led those infatuated idolators continually to allude. In truth, by that expression, the Latin writers meant the orb of the sun, *rota pro solis orbe usurpatur*, says Stephanus; as the Greeks used the word *δίσκος*.

I proceed to present the reader, from Mr. Gough's Camden, with an account of the serpentine temple of Abury; only premising a few general observations concerning THE ANCIENT SERPENT-WORSHIP.

It is impossible to say in what country the worship of serpents first originated.

The serpent was probably a symbol of the *κακοδαίμων*, or evil genius: and those whose fears led them to adore, by way of pacifying, the evil dæmon, erected to the serpent the first altar. In succeeding periods, its annual renewing of its skin, added to the great age to which it sometimes arrived, induced the primitive race to make it the symbol of immortality. Serpents biting their tails, or interwoven in rings, were thenceforwards their favourite symbols of vast astronomical cycles, of the zodiac, and sometimes of eternity itself. In this usage of the symbol we see it infolding all the statues of gods and deified rajahs in the sacred caverns of Salsette and Elephanta.

Elephanta. Symbols also being the arbitrary sensible signs of intellectual ideas, in moral philosophy, the serpent, doubtless, from what they themselves observed of it and from the Mosaic tradition concerning its being more subtle than any other animal, became the emblem of wisdom. In the ancient hieroglyphical alphabet, it forms the figure S. It was, therefore, mythology and philosophy that first exalted the serpent, from being considered as an evil dæmon, and a symbol of evil, to the rank of a good dæmon, and to be regarded as the symbol of a benign and perfect numen.

An ancient Phœnician fragment, preserved for posterity in the *Œdipus Ægyptiacus*, fully explains the notion which the Egyptians and other Pagan nations entertained of this compound hieroglyphic, the **GLOBE**, **WINGS**, and **SERPENT**, which decorated the portals of their proudest temples. Jupiter, says the fragment, is an imagined sphere : from that sphere is produced a serpent. The sphere shows the divine nature to be without beginning or end ; the serpent his Word, which animates the world, and makes it prolific ; his *wings*, the spirit of God, that by its motion gives life to the whole mundane system.

This

This is farther confirmed by Stukeley, in the following passage in his *Abury*.

We learn repeatedly from Sanchoniathon, Porphyry, and other ancient authors quoted by Eusebius in the *Præparatio Evangelica*, that the first sages of the world had just and true notions of the nature of the Deity, conformable to those of the Christians ; that, in their hieroglyphic way of writing, they designed the Deity and his mysterious nature by the sacred figure of the circle, serpent, and wings. Of these, the circle meant the Fountain of all Being ; for, this being the most perfect and comprehensive of all geometrical figures, they designed it for the symbol of the First and Supreme Being ; whose resemblance we cannot find, whose centre is every where, and whose circumference is no where. The serpent symbolized the Son, or first divine emanation from the Supreme. This they called by the name of Ptha, which is derived from the Hebrew, meaning the WORD. The wings symbolized that divine Person or Emanation from the former, commonly called *Anima Mundi*, but the Egyptians called him KNEPH, which in Hebrew signifies winged.

A B U R Y ;

A MAGNIFICENT DRUIDICAL TEMPLE OF
THE SERPENTINE KIND.

ABOUT a mile from Silbury-Hill is Abury, a stupendous monument of Druidism, first noticed by the inquisitive Mr. Aubrey, and since accurately surveyed and commented on by the indefatigable Dr. Stukeley. A village of that name being built within its circuit, and out of its stones ; the gardens, orchards, and other inclosures, have both disfigured and concealed the great original plan.

The whole is environed with an immense circular rampart, or terrace, of earth, sixty feet broad ; and a ditch within it, of the same breadth. The diameter is one thousand four hundred feet, the circumference four thousand eight hundred feet, and the area inclosed twenty-two acres ; through the centre of which runs the high road from Marlborough to Bath. The first circle of stones within this area is thirteen thousand feet diameter, and consists of one hundred stones, from fifteen to seventeen feet square, reduced, in

1722, to forty, of which, only seventeen were standing, and about forty-three feet asunder, measuring from the centre of each stone.

Within this great circle were two lesser, each consisting of two concentric circles, the outermost of thirty, the inner of twelve, stones, of the same size, and at the same distance from each other as the others. The southernmost of these circular temples had a single stone in its centre twenty-one feet high: the northernmost a cell, or kebla, formed of three stones, placed with an obtuse angle, towards each opening to the north-east; before which lay the altar, as at Stonehenge. Both these temples were almost entire about the year 1716; of the north temple, outer circle, only three stones remained standing, in 1723, and six down: of the south temple fourteen, half of them standing.

In the south end of the line, connecting the centres of these two temples, is a middle-sized stone, with a hole in it, perhaps to fasten the victims to. Numbers of these stones have been broken by burning, to build houses with; and others buried, to gain the ground they stood on for pasture. The two original entrances to this stupendous work were from the south-east and the west, and each had an
avenue

avenue of stones. The first of these, or Kennet-avenue, was a mile long, of one hundred and ninety stones on a side, of which remained seventy-two, in 1720, terminating at Overton-Hill, which overhangs the town of West Kennet, and on which was another double circle of forty, and eighteen other stones.

This was called, by the common people, the Sanctuary, and is described by Mr. Aubrey as a double circle of stones, four or five feet high; the diameter of the outer circle forty yards, and of the inner fifteen: many were fallen, and now there is not one left. He speaks of the wall leading to it, set with large stones, of which, he says, one side was nearly entire; the other side wanted a great many. He noticed only one avenue from Abury to Overton-Hill, having no apprehension of the double curve it makes: but he erred in saying there was a circular ditch on Overton-Hill. From the west side of Abury goes another avenue to Beckhampton, of the same length, and composed of the same number of stones, of which scarce any remain. On the north of this avenue was Longstones; a cove of three stones, facing the south-east; its back made of one of the stones of the avenue. It stood on a little eminence, and served as a chapel.

chapel. This stone and another flat one are each sixteen feet high and broad, and three and a half thick: the third carried off. Aubrey calls these the Devil's Quoits. Not far from them is Longstone Long-Barrow.

Dr. Stukeley calculated the total number of stones employed to form this stupendous work of Druidism, with its avenues and Overton-Temple, at six hundred and fifty. He supposed that altogether, when entire, it represented the Deity by a serpent and circle; the former represented by the two avenues, Overton-Temple being its head; the latter by the great work within the vallum at Abury.

At present there only remains a few stones standing of this once magnificent and extraordinary monument of Druidical architecture, so constructed, and of such materials, as to warrant the supposition, that neither the ravages of time, nor the chance of incident, could so effectually have obliterated it for many ages to come.

Windmill-Hill, North of Abury, is encompassed with a circular trench, covered with barrows; in one of which Dr. Stukéley found an urn. The stones employed in all those works, from fifty to seventy tons weight, are the

the same as those at Stonehenge, brought from Marlborough-Downs, where the country-people call them *SARSENS*, from a Phœnician word for a *rock*.

Although the disfigured plan and ruined state of this vast Druidical fane forbid us to speak concerning it with all that preciseness and decision necessary to the establishment of a new hypothesis ; yet my conjecture of the stones being placed in number and order consonant to ideas founded in astronomy, borders nearly upon certainty, when we consider the various corroborating circumstances in the preceding account. The remarkable numbers 100, 60, 30, and 12, constantly occurring, unavoidably bring to our recollection the great periods of astronomical theology; the century, the sexagenary cycle of India, the thirty years which formed the Druid age, the twelve signs of the zodiac, and the number of years in which the revolutions of Saturn are performed; of which, multiplied by five, it has been previously observed, the sexagenary cycle was originally fabricated. Thus the great circle consists, we are told, of 100 stones; the whole temple is surrounded with a circular rampart, 60 feet broad, and with a ditch of exactly the same breadth, and the two concentric circles, inclosed

inclosed within the greater, the outermost consists of 30, the inner of 12 stones. Dr. Stukeley computes that the two avenues, the one leading to Kennet, the other to Beckhampton, were each formed of 190 stones; but, as of these so very few remained for him to form a just computation by, we may fairly, upon the ground of analogy, and as having an equal reference to astronomical calculation, state the number of each to have been 180, which, doubled, gives the total amount of the days of the ancient year, before it was reformed by the superior correctness of modern astronomers. That the Orientals actually did regulate their designs in architecture by such fanciful rules of mensuration is evident from what Diodorus Siculus tells us, that the walls of Babylon were built by Semiramis, of the extent of 360 furlongs, to mark the number of days of the ancient year. He adds, she employed in that vast undertaking no less than two millions of men, and one stadium was erected every day, till the whole was completed within the period of that year, the length of which the measure of their circumference was intended to represent.* Nor did they confine their astronomi-

* Diod. Sicul. p. 120.

cal allusions to architecture only, for they entered largely into their religious and civil ordinances, since the same author informs us, that, at the tomb of Osiris, during the days of lamentation, the priests who were appointed to bewail his death, daily poured out libations of milk from 360 vases,* to denote the days of the primitive year, used in the reign of that monarch; and, again, that, at Acanthe, near Memphis, on the Lybian side of the Nile, it was an ancient immemorial custom, on a particular festival, for 360 priests to fetch water from the Nile, in as many vessels, from that river, and then to pour the water into a great receiver perforated at the bottom; by which ceremony they represented both the days of the ancient year and the ceaseless lapse of irrevocable time.† Another still more remarkable story of this kind is recorded by Herodotus, who acquaints us, that Cyrus, in his expedition against Babylon, in order to render the river Gyndes fordable for his army, as well as from a curious species of revenge for the loss of one of the consecrated horses of the sun, drowned in the previous at-

* Diod. Sicul. lib. i. p. 26. Rhodomanni.

† Ibidem, p. 209.

tempt to pass that stream, divided it into 360 channels, the number of the degrees through which the sun himself passes in his progress through the zodiac.*

These are all plain vestiges of the solar devotion, as well as proofs of its universal influence which spread from the plains of Babylon, where it originated under Belus, to the rocks and forests of Britain first tenanted by his posterity the Belidæ, that primæval colony who instituted the Bealtine, and who, according to Mr. Bryant's and my own supposition, were the fabricators of Stonehenge and the designers of Abury. Dr. Stukeley, also, we see, estimates the whole number of stones interspersed throughout the stupendous work of Abury to be 650; but, for the reasons alleged above, no great violence will be offered to probability if we state them as 600, which is the precise period asserted by Josephus, from the traditions of his nation, to have been known to the ante-diluvians, and stated by him to have been their *annus magnus*.† By this cycle of six hundred years, which Bailli terms *lunisolar*, Josephus is supposed to have

* Herodoti, lib. i. p. 189.

† Josephi Antiq. Judaic. lib. i. cap. 3.

meant the period wherein the sun and moon return to the same situation in the heavens in which they were at the commencement of that cycle; and it is of this cycle that the great astronomer Cassini, cited in Long, speaks with such rapture, for he observes, that this grand period, of which no intimation is found in the remaining monuments of any other nation; except the ancient Hebrews, is the finest period that ever was invented, since it brings out the solar year more exactly than that of Hipparchus and Ptolemy, and the lunar month within about one second of what it is determined by modern astronomers. If, adds Cassini, the anti-deluvians had such a period of 600 years, they must have known the motions of the sun and moon more accurately than they were known some ages after the flood.*

But to resume the consideration of other interesting and important matters suggested by the survey of Abury. When the reader recollects all that has been remarked in the preceding volumes concerning the northern aspects of the GATES of the ancient caverns and temples, it will be no small corroboration

* Long's Astronomy, vol. ii, p. 653.

of an hypothesis, which would establish these immense structures as the work of an Oriental colony, that the grand entrance to this temple, not less than Stonehenge, is towards the *north-east quarter*; for, as Stukeley has very judiciously remarked, ever since the world began, in building temples, or places of religious worship, men have been studious in settling them according to the quarters of the heavens; since they considered the world as the general temple, or house of God, and that all particular temples should be regulated according to that idea. The east naturally claims a prerogative, where the sun and all the planets and stars arise: the east, therefore, they considered as the face and front of the universal temple. The north was considered as the right hand, and great power of the world; the south as the left hand, or lesser power. For, when the sun approaches the northern region, passing over the vernal equinox, he brings plenty, and the fulness of his benign influences: when he returns to the south, the face of nature languishes in its winter attire; therefore they thought the polar region not only highest, but of most eminence and effect. This observation, he afterwards adds, immediately applies to our
purpose,

purpose, for we cannot but observe, that the whole of Abury temple, if due regard be had to its figure, has its upper part to the *north*, and its face, if we may so speak, towards the *east*. In that direction the serpent bends; that way the cove of the northern temple opens; that way the cove of Beckhampton avenue; that way the face of Stonehenge temple looks. So that the Druids appear to have the same notions with the other wise men of the Oriental ancients.* It has been observed, that the two wings of Abury are formed of two temples inclosed within the great circular temple; the one of these is situated on the north, and the other on the south, on which our antiquary remarks: it should seem that the northern temple had the pre-eminence, and was the more sacred of the two: for, as the cove was the adytum of that temple, so the whole northern temple may be esteemed as the adytum of the whole work, the southern being as the body of it.†

These temples, however, were not only thus placed with reference to ancient theological notions, strictly Oriental, but their stations were fixed with mathematical precision to

* See Stukeley's Abury, p. 51.

† Ibid.

correspond with the four cardinal points. Dr. Stukeley is of opinion, that, in thus fixing their situation, they used a compass, or magnetic instrument, and he has most ingeniously attempted to ascertain, from the variation of that needle, the exact æra of the construction of either building. He found the variation in all the works about Stonehenge to be between six and seven degrees to the east of the north, and at Abury to be about ten degrees the same way, and that as precisely as possible. This circumstance, he observes, must necessarily excite attention ; as from this regular variation in both places, there is less reason to suppose it *accidental*. The whole work was manifestly intended to be set on the cardinal points of the heavens, but they all vary one way and exactly the same quantity. Thus Kennet-avenue enters the town of Abury ten degrees north of the north-west point, which north-west point was the Druid's purpose. The neck of the serpent going down from Overton-Hill regards Silbury precisely, and their intent was that it should be full west ; but it is ten degrees north of the west. The meridian line of the whole work passes from Silbury-Hill to the centre of the temple at

Abury :

Abury: this varies ten degrees to the east from the north point. The stupendous cover in the northern temple opens ten degrees east of north-east; whereas it was their purpose that it should exactly correspond with north-east. The diameter of the great circle of the great stones at Abury, on which the north and south temples are built, was designed to have been set on the line from north-west to south-east, but it verges ten degrees northward; and so it is of all other particulars.* The result of his observations on this point is, that, arguing upon Halley's hypothesis, that an entire revolution of the circle is performed in about the space of 700 years, and judging from the different effect of the weather upon the respective structures, the great diversity in the manner of the works, added to many other considerations, we may conclude Abury to have been erected at least 700 years prior in time to Stonehenge. But, if we take two entire revolutions of that circle, it will then have been erected 1400 years previous to the other, which will carry us back to the time of Abraham, near two thousand years before Christ, about which time the Doctor thinks

* Abury, p. 52.

the Tyrian Hercules led the first Phœnician colony to Britain. To all this accumulation of conjectural evidence by Stukeley, I shall add, that the magnet is mentioned, by the most ancient classical writers, under the name of Lapis Heraclius, in allusion to its asserted inventor Hercules; and Dr. Hyde enables me to affirm, that the Chaldeans and Arabians have immemorially made use of it, to guide them over the vast deserts that overspread their respective countries.* According to the Chinese records, also, the Emperor Ching-Vang, above a thousand years before Christ, presented the ambassadors of the king of Cochin-China with a species of magnetic index, which, says Martinius, "*certe monstrabat iter, sive terra illud, sive mari facientibus.*" The Chinese, he adds, call this instrument CHINAN; a name by which they at this day denominate *the mariner's compass*.† In respect to the Indians, there can be little doubt of their having been as early acquainted with the magnet as the earliest of those nations whom their gems and rich manufactures allured to their coast, and whose shores they

* See Hyde de Religione Veterum Persarum, p. 189.

† Martinius, Hist. Sin. p. 106.

themselves visited in return; and that they were, in the remotest æras, engaged not less than the Phœnicians in projects of distant commerce and navigation, which cannot be extensively carried on without a knowledge of the magnet's powers, I have this strong and curious evidence to produce; for, in the most venerable of their sacred law-tracts, the Institutes of Menu, that is, the first, or Swayambhuva Menu, supposed by the Indians to have been revealed by that primæval legislator many millions of years ago, and to which, in fact, after mature deliberation, Sir William Jones cannot assign a less ancient date than one thousand or fifteen hundred years before the Christian æra, but which is, probably, of a far superior traditional antiquity, there is a curious passage on the legal interest of money, and the limited rate of it in different cases, "with an exception in regard to adventures at sea."*

Future investigation, and our increasing knowledge relative to the early growth of the sciences in India, will probably demonstrate the fact which is here only supposed. The channel, by which they might have very easily

* See vol. i. p. 429, and vol. ii. p. 371.

became acquainted with its wonderful properties, must be instantly apparent to every one who reflects on the innumerable benefits, which the discovery of so inestimable a treasure has bestowed upon mankind. In fact, the stupendous acquisition may, in my opinion, be safely assigned to divine Revelation vouchsafed to Noah, that it might be an unerring guide to that holy and favoured patriarch when inclosed in the dark bosom of the ark. Nor is it at all improbable that the Deity, by whose express direction that ark was fabricated, should impart, at the same time, the knowledge of a magnetical index to direct its devious course, amidst the boundless darkness that reigned around, and the united fury of the conflicting elements. The momentous secret thus intrusted to the patriarch might be transmitted down to his immediate posterity, and by them inviolably preserved, till the period arrived when the enlarged population and increasing commerce of mankind rendered its divulgement necessary, towards fulfilling the benevolent designs of that Providence, who constituted man a social and an inquisitive being.

An inquiry has already in part been instituted into the real country and æra in
which

which Hercules flourished ; and I have shewn, that neither the Hercules of Tyre, nor yet of Egypt, were the first whose actions are recorded on the page of history. There was, we have seen, a Chaldean (that is, an Indian) Hercules, or, as we have found him before denominated, a Hercules Belus, prior in time to all who bore the name ; and upon that fact, which I hope to establish beyond all doubt, depends a great part of the novel system which I mean to pursue in the course of the Indian History ; for every man has his system before him when he commences a great histoical undertaking ; and, if the system be founded on a proper basis, that is of facts recorded in profane, compared with and strengthened by those of sacred, history, it is to be hoped that such system merits, and will find, support.

For the information alluded to, we are indebted to a celebrated and eloquent Pagan writer, whose account, in this instance, wonderfully corroborates the true system of sacred theological history. It is Cicero, who, after enumerating the respective genealogies of all those who bore the name of Hercules in the ancient world, acquaints us, that “ the Indian
Hercules

Hercules is denominated Belus;* and I hope, hereafter, in the regular history of ancient India, to make still more and more evident what has already been asserted, that to this renowned Assyrian and Indian conqueror, who, under the name of Bali, engrosses three of the Indian Avatars, is to be ascribed the greatest part of the numerous exploits of that celebrated personage in different quarters of the world; exploits of which the memory was deeply rooted, and continued for a long time to flourish, in every colony that emigrated from Asia, deeply blended with their history and interwoven with their mythology. He was as before observed, and the fact ought to be perpetually borne in mind, constantly compared, for the splendour of his actions and the extent of his power, to the sun that illuminates and seems to govern the world; and the name of Baal, and Bel, was equally applied to both the monarch and the orb. Of these assertions there cannot, in any nation, be given more striking and direct proofs than have already been brought forward respecting their

* Cicero De Natura Deorum, lib. iii.

prevalence in Britain ; here, we have seen the sacred fires in honour of BELUS, once flamed over the whole island. Mr. Toland, in that part of his history of the Druids, which has been so often referred to, and in part extracted, but never before inserted at length, gives the following account of these festival fires. On May-eve the Druids made prodigious fires on these cars, which, being every one in sight of some other, could not but afford a glorious show over a whole nation. These fires were in honour of Beal, or Bealan, latinized by the Roman writers into Belenus, by which name the Gauls and their colonies understood the Sun : and, therefore, to this hour, the first day of May is, by the ab-original Irish, called LA BEALTEINE, or *the day of Belen's fire*. May-day is likewise called LA BEALTEINE by the Highlanders of Scotland, who are no contemptible part of the Celtic offspring. So it is in the ISLE OF MAN : and, in Armoric, a priest is still called BELEE, or the servant of BEL, and the priesthood BELEGIETH."*

This Indian Hercules, therefore, this enterprizing god-king Belus, is the true proto-

* See Toland's History of the Druids, p. 70.

type of him who was worshipped at Tyre, and was the great promoter of commerce and navigation ; of him who was adored as the vanquisher of Busiris in Egypt, and whose twelve labours are the symbols of the Sun toiling through the twelve signs of the zodiac ; of him, in short, whose complicated history was in after-ages, with all its extravagances, adopted by the fabulous Greeks. One of the most curious and remarkable of the mythologic feats of Hercules was his sailing in a golden cup, which Apollo, or the Sun, had given him, to the coasts of Spain, where he set up the pillars that bear his name. On this passage Macrobius remarks, *Ego autem arbitror non POCULO Herculem maria transvectum, sed navigio cui SCYPHO nomen fuit.** From this fable of the golden cup, which was probably no more than a gilded vessel, we may both collect in what manner the celebrated feats of Hercules are to be understood, and arrive at an important historical truth concealed under the allegory, that Hercules, or at least a chieftain, or colony, assuming the name of their sovereign, a circumstance not unusual in the earliest periods of time

* Vide Macrobiï Saturnalia, lib. v. cap. 21, p. 522, edit. oct. 1670.

visited Europe, and transported thither the theological rites and civil customs of the Oriental world ; but how they could perform with safety and success so distant and hazardous a voyage, without the aid of the magnetic needle to conduct them, must be left to the consideration of those of my readers, who may reject the hypothesis above submitted to them.

It ought not to be concealed, however, that by some mythologists, and especially by the author of some letters, on this subject, to Sir Hildebrand Jacob, this mysterious vase, given by Apollo to Hercules, is contended to have been itself the mariner's compass-box, *by* which, not *in* which, he sailed over the vast ocean. The same author contends, that the image of Jupiter Hammon, whose Libyan temple, according to Herodotus, took its rise from Phœnicia, was nothing more than a magnet, which was carried about by the priests, when the oracle was consulted, in a *golden scyphus*: that the famous golden fleece was nothing else: whence, he says, the ship which carried it is said to have been sensible, and possessed of the gift of speech ; and, finally, that the high authority of Homer may be adduced to corroborate the conjecture, that
the

the Phæacians, a people renowned for nautical science, had the knowledge of the magnet; for he observes, either that certain lines in the 8th book of the Odyssey, describing the Phæacian vessels as instinct with soul, and gliding, without a pilot, through the pathless ocean to their place of destination, allude to the attractive power of the magnet, or else are utterly unintelligible.* Whatsoever truth there may be in this statement, it is evident, from the extensive intercourse anciently carried on between nations inhabiting opposite parts of the globe, *where the stars, peculiar to their own native region, could no longer afford them the means of safe navigation*, that the important discovery must be of far more ancient date than the year of our Lord 1260, to which it is generally assigned, and by the means of Marco Polo, a man famous for his travels into the East.

Before I conclude these strictures on Abury, another circumstance of striking affinity between the Scythians and old Britons should by no means be omitted.

* See an Inquiry into the Patriarchal and Druidical Religion, by the Rev. Mr. Cooke, p. 27.

In my parallel of the ancient Scythian and Indian superstitions, I have repeatedly mentioned the custom of interring with the venerated kings, most beloved in each country, their favourite ministers, women, horses, arms, and accoutrements. In opening Silbury-Hill, together with the body of the inhumed monarch, the workmen found a bridle, a solid body of rust, which Dr. Stukeley purchased on the spot, and of which he has given an engraving. In other barrows, described in page 45, they found, together with the body, other pieces of armour, spear-heads of iron, knives, swords, gold rings, and fragments of golden ornaments. They likewise dug up several large beads of amber, some of glass enamelled ; some were of a white colour, others blue and azure. Now rosaries of beads form a constant appendage to the Brahmin hermits, or Yogee penitents, which they count with as much enraptured zeal as any enthusiast of the Roman church, which imported this at the same time as it did the other superstitions of Asia. The introduction of beads into religious ceremonies arose from the attachment of the Asiatics, like the old Pythagoreans, to sacred and mystical numbers.

Concerning

Concerning this bridle, it should be farther observed, Dr. Stukeley affirms, that it was the bridle of an ancient British chariot, and hence presumes, that the first British settlers, being an Eastern colony, learned to fabricate and make use of that kind of carriage from the Egyptians and other Eastern nations, who, even so early as the time of Joseph, made use of chariots both in war and peace. He adds, that they are mentioned in the wars carried on by Joshua against the Canaanites as being used by the latter, and that the British chariots have ever been famous, since the Romans, in the height of their luxury and glory, made use of British chariots.

Esseda cælati sistè Britanna jugis.

On the contrary, I contend, that, as the Indians have ever made use of war-chariots, with a numerous train of which Porus attacked Alexander, and as the Scythians were accustomed to transport themselves and families, over the vast plains of Tartary, in rude carriages of similar construction; if a foreign origin must be assigned them, they might full as probably, at least, have derived them from that quarter as from Egypt.

THE ANGUINUM, OR SERPENT-EGG OF THE
DRUIDS.

A SERPENT was always an important symbol in the ancient mysteries; a living one we have seen, in a former volume, was thrown into the bosom of the candidate for initiation in those of Mithras; it was esteemed an emblem of immortality, from the great age it sometimes arrives at, and of regeneration, from the annual shedding of its skin. In the mysterious rites of Druidism it was a symbol not less in request; the aguinum was a charm of wonderful power, and constantly carried, suspended from the neck, on the bosom of the Druid. Pliny has thus described its formation. *Angues innumeri, æstate convoluti, salivis faucium corporumque spumis artificii complexu glomerantur; anguinum appellatur. Druidæ sibilis id dicunt in sublime jactari, sagogue oportere intercipi, ne tellurem attingat: profugere raptorem equo: serpentes enim insequi, donec arceantur amnis alicujus interventu.** An infinite number of snakes entwined together, in the heat of

* Plinii Nat. Hist. lib. xxix. cap. 3.

summer, roll themselves into a mass ; and, from the saliva issuing from their jaws, and the sweat and froth of their bodies, that egg is engendered which is called *anguinum*. By the violent hissing of these serpents, the egg is forced aloft into the air, and the person destined to secure it must catch it in the *sagus*, or holy vestment, before it reaches the ground, or otherwise its virtue is lost. It is necessary that he should be mounted on a swift horse, for the serpents will pursue the ravisher, with envenomed rage, to the brink of the first river, whose waters alone stop their pursuit. He adds, that this ceremony of gaining the *anguinum* is only to be undertaken at a particular period of the moon ; that this egg was thought to render the possessor fortunate in every cause which he undertook, and triumphant over all his adversaries ; and, of his own knowledge, he asserts, that a Roman knight, who was agitating a suit at law, and addicted to Druidism, was put to death by Claudius Cæsar for entering the forum with the *anguinum* in his bosom, under the persuasion that it would influence the judges to give a decision in his favour.

Toland informs us, that the *ovum anguinum*

num is, in British, called *glain-neidr*, or *serpent of glass*; and, in truth, the whole relation above inserted was no more than a fabricated tale of the Druids to impose on the vulgar.

Their boast, by this charm, to controul the current of destiny, added to their pretended skill in magic, served to bind down, in the indissoluble bonds of superstition, their abject British vassals, not less than the horrible incantations, with consecrated grass, of the Brahmins, tended to overawe and oppress the more timid race of India. Mr. Camden gives the following account of the remains of this superstition in Britain. “ In most parts of Wales, throughout all Scotland, and in Cornwall, we find it a common opinion of the vulgar, that, about midsummer-eve, (though in the time they do not all agree,) it is usual for snakes to meet in companies; and that, by joining heads together and hissing, a kind of bubble is formed, which the rest, by continual hissing, blow on, till it passes quite through the body, and then it immediately hardens, and resembles a glass ring, which whoever finds (as some old women and chil-

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dren are persuaded) shall prosper in all his undertakings. The rings thus generated are called *Gleineu Nadroeth*; in English, snake-stones. They are small glass annulets, commonly about half as wide as our finger-rings, but much thicker, of a green colour usually, though sometimes blue and waved with red and white.”*

To these serpent-stones, formed in imitation of the imagined anguinum, as numerous and wonderful virtues were attributed as to the famous cobra-stone of the Brahmins, an ancient article of commerce at Surat. Mr. Toland, in addition, informs us, that they were worn about the Druid, as a species of magical gem; that they were in fashion either perfectly spherical, or in the figure of a lentil, and were generally made of chrystal and agate.†

I cannot conclude this article without observing, that Mr. Mason, in his *Caractacus*, alluding to this rite of Druidism, has very poetically and accurately detailed the preceding relation of Pliny:

* Camden's *Britannia*, p. 815.

† See Toland's *History of the Druids*, vol. i p. 60.

——— But tell me yet,
 From the grot of charms and spells,
 Where our matron sister dwells,
 Brennus, has thy holy hand
 Safely brought *the Druid-wand*,
 And the potent *adder-stone*,
 Gender'd 'fore th' autumnal moon;
 When, in undulating twine,
 The foaming snakes prolific join;
 When they hiss, and when they bear
 Their wond'rous egg aloof in air:
 Thence before to earth it fall,
 The Druid, in his hallow'd pall,
 Receives the prize,
 And instant flies,
 Follow'd by th' envenom'd brood,
 Till he cross the chrystal flood.

LUSTRATIONS OF THE INDIANS AND OLD BRITONS.

THERE were many other evident relics dispersed over all the Gentile world of the religion and sacred rites of the Brahmins; nor is the Christian world, at this day, entirely free from them, especially that portion of it in which the Roman Catholic religion flourishes. At the entrance of all the Eastern temples were placed vessels filled with consecrated water, with which the votaries at their entrance besprinkled themselves; and this custom

custom, there can scarcely be a doubt, originated in India, where large tanks for the ablution of a people, whose laws of unfathomable antiquity are not less immutable than those of the Medes and Persians, to this day remain invariably placed in the front of their pagodas, without previous ablution in which the Hindoo dares not approach the altar of his God. The antiquity, therefore, and universality of this practice, as well as that of using consecrated *beads* in their worship of the Deity, common to the Brahmins not less than the Druids, apparently demonstrate from what primæval source the votaries of modern superstition in Rome, have borrowed this Asiatic rite. One incentive of these innumerable prescribed ablutions was, doubtless, to obtain invigorated health in a relaxing clime; but the first origin is to be found in the precepts of religion; for, as they beheld that frequent submersion in water washed away the stains and leprous diseases of the body, so from analogy they conceived that purifying element might gradually absterge the impurities of the polluted soul. I ventured, in a former chapter of this work, when relating the countless ablutions of the Brahmins, to hazard an assertion, and hereafter I shall endeavour

deavour fully to prove it, that there was another incentive to ablution to be found in traditions handed down in the family of Noah relative to the purgation and purification which the earth underwent from the waters of the deluge. Spencer, in the following passage, speaking of the Jewish purifications by water, is decidedly of this opinion: *Hanc ablutionem arbitror fuisse inter instituta vetera orta post MAGNUM DILUVIUM IN MEMORIA AQUA PURGATI MUNDI.**

We have seen what innumerable vases and basons for the purifying water there were ex-fodiated in the ancient caverns of Salsete and Elephanta; and both the period of their fabrication and the customs of the Indians, *immemorially established* must prevent any idea being entertained that they were borrowed from any other people. Now that the Druids invariably used similar rites is evident from the infinite number of hollow vases, or rock-basons, as Dr. Borlase, in his chapter on the subject calls them, continually found sculptured upon, or adjoining to all the Carns, or mercurial heaps, of the old Druids. Some of these rock-basons which he describes

* Vide Spencer de Leg. Heb. p. 1099.

are of considerable depth and breadth; are placed in regular and successive order one below the other on the loftiest eminences of their craggy temples, far beyond the reach of defilement, to catch, as it fell, the hallowed dew for lustration, and to receive the pure white flakes of virgin snow, which, refined by the chemical hand of nature, descended from that heaven to which their prayers were addressed, unpolluted by those earthly particles for ever blended with the water immediately derived from ponds and rivers. "I have observed," says Dr. Borlase, "so many of those rock-basons in the Carns of Cornwall, that I may venture to say there is hardly any considerable group of rocks in these western parts which has not more or less of them. There are two sorts of them; some have lips or channels to them, others have none. The shape of them is not uniform: some are quite irregular; some are oval; and some are exactly circular. They are frequently found on the tops of Logan, or rocking-stones, and should therefore seem to have some affinity to, and be subservient to, the same species of superstition."*

* Borlase's *Antiquities of Cornwall*, p. 242.

THE TRANSMIGRATION OF THE DRUIDS
THE LEADING FEATURE IN THE BRAH-
MIN RELIGION: AND, ACCORDING TO
BOTH, THE WORLD WAS TO BE DESTROY-
ED BY A GENERAL CONFLAGRATION.

IN that ancient book, the Institutes of Menu, compiled, at least, many centuries before Pythagoras was born, there is a long chapter consisting of one hundred and twenty-six slokas, or stanzas, on TRANSMIGRATION AND FINAL BEATITUDE, and that chapter was perhaps the first public promulgation of this dogma in Asia. The doctrine delivered in it is exceedingly curious, and by no means limits the journey of the metempsychosis to human and bestial forms; it imprisons the wandering soul in vegetables, and plunges it into the depths of the mineral world. All beings emanate from the great spirit: "From the substance of that Supreme Spirit are diffused, like sparks from fire, innumerable vital spirits, which perpetually give motion to creatures exalted and base." Stanza 15. These, as they first proceeded from the great Brahme, after traversing the universe, return to and
are

are finally absorbed in him, as their centre. The Deity is their represented as punishing only to purify his creatures ; not to gratify his vengeance, but for the purposes of example and reform. Nature itself exhibits only one vast field of purgatory for the classes of existence : eternal torments, for temporal offences, are utterly disclaimed. The meaning and result of the whole seem to be summed up in the 73d and 81st stanzas. “ A far as vital souls, addicted to sensuality, indulge themselves in forbidden pleasures, even to the same degree shall the acuteness of their senses be raised in their future bodies, that they may endure analogous pains.” “ With whatever disposition of mind a man shall perform, in this life, any act religious or moral, in a future body, endued with the same quality, shall he receive his retribution.” On the subject of FINAL BEATITUDE there occur, towards the close, some most sublime stanzas on the omnipotence and omnipresence of the Divine Spirit, worthy of the true religion itself, which I shall notice hereafter, when more particularly examining that venerable fragment, concluding my remarks at present with selecting the following one more immediately connected with our subject. “ Equally perceiving

ceiving the supreme soul in all beings, and all beings in the supreme soul, the transmigrator sacrifices his own spirit by fixing it on the spirit of God, and thus approaches the nature of that sole divinity, who shines by his own effulgence." Stanza 91.

The foundation of this fanciful doctrine seems to have been a firm persuation that the soul of man is formed of a substance not perishable like the body, but flourishing with unimpaired vigour through all the vicissitudes of existence. The support and general propagation of it among the philosophers of Asia was an anxious desire to account for the innumerable evils incident to life, and to vindicate Providence in its government of the world. The first opinion they undoubtedly had from the Noachidæ, of whom Menu, if not Noah himself disguised by mythology, ranked in the very first class. The second originated in the speculation of fanciful metaphysicians, who, fond of diving into mysteries beyond the grasp of man's limited comprehension, erected upon the sublime and solid basis of the soul's immortality an airy superstructure, by no means naturally connected with it, or affording any just grounds for the support of it. It has been asserted, that

that Pythagoras did not propagate the notion of the descent of the transmigrating soul into any frame below the human. But the antiquity and high authority of this recently-discovered volume should, I conceive, have sufficient weight with antiquaries to induce them to conclude, that Pythagoras, who doubtless derived this, with many other singular doctrines, from the Indian Brachmans, did not confine the wandering of the soul to the human frame alone ; but inculcated its occasional descent into brutal forms. It also greatly strengthens the assertion of Cæsar, the truth of which has been warmly contested, that the Druids, who probably had this doctrine from the same primæval source, notwithstanding some inconsistencies to which such an opinion gives birth, not only believed in the transmigration, but adopted the doctrine in all the latitude in which the original inventors admitted it.

The final destruction of the existing world by fire was, also, not less a tenet of the Brahmins than we have proved it was of the Indians ; for, says Cæsar, *conditum mundum credebant, et aliquando igni periturum*. Among both sects, probably, the doctrine was originally drawn from the same source, traditions
derived

derived from Revelation, relative to the apokatastasis of nature, prevalent in the family of Noachidæ. In truth, this is the only rational mode of accounting for a dogma so universally received in the Oriental and Grecian schools; for the disciples of Zoroaster and Plato alike believed in the general conflagration; and the doctrine is confirmed by the solemn and decided voice of Scripture. The Chaldeans, or ancient Magi, taught that it would happen when all the planets met in conjunction in the sign Cancer, in the same manner as the great deluge had taken place, when, according to their astronomical books, the planets were in conjunction in that of Capricorn.* The Stoics, who, also believed in the destruction of the globe by the alternate violence of water and fire, conceived, that the grand catastrophe by fire would take place at the end of the annus magnus, or 36,000 common years; in which space a complete revolution of the zodiac, by the precession of the equinoctial points, after the supposed rate of a degree in one hundred years, would be effected. The conceptions on this head both of the Oriental and Greek philoso-

* Berosus in Seneca Nat. Quest. lib. iii. cap. 29.

phers,

phers, according to Horus Apollo, were, elegantly symbolized by the history of the phœnix, a bird fabled to be a native of the East, and the only one of its species capable of existing at one period. At the expiration of the GREAT YEAR this bird is feigned regularly to appear, a prelude of its approaching dissolution, and, having formed itself a nest of the most fragrant spices, to deposit it on the altar of the sun at Heliopolis, where, being immediately set on fire by the rays of that sun, she, for some time hovers over it, then plunges into the flaming bed, and is consumed together with it. From its ashes another phœnix springs, young, vigorous and beautiful, the expressive emblem of regenerated nature and a new-formed world. It was an allusion to this tradition of a general conflagration, in the opinion of Porphyry, who relates the fact, that the Egyptians, annually, at the summer solstice, marked their houses, flocks, and trees, with red; and he imputes to the same cause the institution of the celebrated pyrric, or fire-dance of the ancients.* The sacred fires which the Druids kindled at the solstitial period were probably the remains of ceremo-

* Porphyry, lib. i. p. 94.

nies intended to perpetuate this tradition; and the knowledge of its powerful effect, and final destination to consume the ignited globe, might be one source of the veneration paid to this element by the ancient Sabian idolaters.

THE DRUIDS, LIKE THE BRAHMINS, CONSTITUTED THE FIRST ORDER OF NOBILITY, WERE THE HEREDITARY COUNSELLORS OF THE KING, AND THE SOLE EDUCATORS OF YOUTH.

By the same usurped power, which the Brahmins of India assume over the inferior casts of India, did the Druids bow down beneath their arbitrary yoke not only the sovereigns, but the people, of Britain. As they professed to derive their power immediately from the Deity, with whom they equally affected an intimate communion; to the Deity alone, and the superior of their order, they acknowledged their obedience was due. The remains of palaces, magnificent, but rude, which Rowland and other investigators of Druid remains have discovered in Anglesea, Cornwall,

Cornwall, and their other principal stations, in these islands, evince, that, in the depth of their woody recesses, they did not wholly reside in damp and dreary caverns; but enjoyed all the conveniences, and occasionally appeared in all the splendor, known in those barbarous ages. Dion Chrysostom informs us, that they administered justice sitting on thrones of gold, were splendidly lodged and sumptuously entertained by the monarchs whose armies, in war, they animated to the field, and of whose counsels, in peace, they were the hereditary directors.* Those caverns were their sure retreats in time of danger, and the sacred adyta in which the most mysterious rites of their religion were performed. There, in solitude and shade, they instructed the noble youth whose education was solely intrusted to their care, a circumstance which gave them an unlimited sway over the inclinations of their pupils, and bound them from their infancy in the chains of prejudice; there they unfolded the arcana of their philosophy; there they practised those dreadful rites of magic to which their Brahmin ancestors were so grossly addicted in the Median mountains,

* Dion Chrysostom, p. 528, edit. Paris.

and the subterraneous temples of India; boasting that they could draw down into their caverns the genii of the orbs, and controul the operations of astonished nature. In these incantations a variety of consecrated grasses was used by the Brahmins of India, particularly those called CUSA and DARBBHA and the profound venention of the Druids, for the VERVAINE, to be cautiously gathered at the rise of the dog-star; of the sacred wonder-working MISLETOE, to be cut off the parent-oak, by a white-robed Druid, with a golden hook, when the moon was only six days old; of the SELAGO, or hyssop, and the SAMOLUS, or marsh-wort, gathered only by the holy hands of the priesthood, with many superstitious ceremonies, as well as their use of them in their mystical ritual, are too well known to be insisted on here, and are only mentioned to mark the consonance of the opinions and practice of the two nations, in this respect.

As the Brahmins never revealed to foreigners the awful secrets of their religion, so the Druids inviolably concealed from all but their own sect the profound mysteries of their devotion. One of the most solemn vows in initiation was probably the pre-

servation of these mysteries in inviolable secrecy. That they must in the countries where they originally resided have had tablets, if not books, in which as well their religious tenets as their astronomical calculations were recorded, is évident; but various causes may be easily conceived as operating either to their being left behind, or their destruction in the course of a tedious and perilous migration; and, living among strangers, the renovation of them was not necessary. They thought traditional and oral knowledge sufficient, and it certainly favoured the opinion of their doctrines being divinely inspired.

As the young Brahmins passed a very long pupillage in the houses of their preceptors, so did the scholars of the Druids: not less than twenty years were esteemed an adequate period for the full initiation into their abstruse and complicated lore; and it is remarkable, that as the most ancient Sanscreeet treatises in literature are written in stanzas, denominated *slocas*, so all the religion and philosophical doctrines of the Druids were wrapt up in mystical verses, which the student committed to memory; and their poetical compositions of this kind are computed to have amounted to 20,000 in number. Singular as this custom

of propagating the principles of knowledge may appear, it has the sanction of names so eminent in science as Pythagoras and Socrates who taught their scholars after this manner, and left no written documents behind them. This practice indeed of inculcating science *memoriter*, and by verses, seems very generally to have prevailed in the remotest ages; for the most ancient and celebrated Law-Treatise of India is entitled *Menu'sriti*, or *Institutes remembered* from Menu, the first great legislator of the country, which were afterwards collected into a book, and will be largely commented on in the second part of this volume. The preface to this work asserts it to have been originally composed in a *hundred thousand slokas*, which the sage Sumati, son of Bhrigu, for greater ease to the human race, reduced to *four thousand*. The Vedas, also, it should be remembered, are a metrical composition, and, when properly read, according to Mr. Halhed, are chanted after the same manner that the Jews, in their synagogues, from immemorial custom, chant the Pentateuch.*

* Preface to the Gentoo Code, p. 20.

What sciences, in particular, flourished among the Druids besides astronomy, which they seem to have carried to wonderful perfection for those periods ; moral philosophy, whose sublime and awful precepts they incessantly inculcated on their disciples ; music, whose solemn melody, breathed from innumerable harps, during the public worship, roused to transports of enthusiasm the votaries of that animated superstition ; mechanics, which enabled them to elevate to such surprising heights the immense masses of stone discoursed of above ; and botany, to which a race constantly residing in woods, and accustomed to use plants and herbs of a supposed mysterious efficacy in the rites of divination, could be no strangers :—what sciences, I say, besides these they might have cultivated the impenetrable darkness, in which they delighted to bury themselves and their pursuits, must ever prevent our knowing. An acquaintance with geography is indeed allowed them by Cæsar ; but, to a race so entirely secluded from the rest of the habitable globe, little more of that science could be known than what they might learn from the Phœnician and Grecian navigators, who successively

cessively visited the coast of Britain. Ignorant of its external surface, however, the deep and productive mines, with which the island abounded, afforded that inquisitive race a noble opportunity of contemplating its internal wonders, and advancing far in the knowledge of minerals, metals, gems, and other productions of the subterraneous world. Of geometrical knowledge, also, no inconsiderable portion may fairly be assigned them, as being so intimately connected with astronomy, and the mechanical arts in which they had evidently made so great a proficiency. Dr. Borlase, indeed, from his own personal investigation, greatly confirms this latter position; for, on one of the rocks of the famous Karnbre-Hill, in Cornwall, he discovered a very regular elliptical *bason*, ten inches by fourteen, which, he observes, could hardly be so exactly delineated, without stationing the two focusses of the elipsis mathematically; a strong evidence that not only the said *bason* was made by the Druids, but that they understood the principles of geometry.*

*Borlase's *Antiquities of Cornwall*, p. 119.

THE STAFF OF BRAHMINS, THE ORIENTAL TIARA, AND WHITE VESTMENTS OF THE PRIESTS OF MITHRA, WERE ALL IMMORTALLY USED BY THE DRUIDS OF BRITAIN.

THE Druids invariably carried a sacred wand, or staff, in their hands, which is one of the discriminating symbols by which the Brahmin order is known; and, being constantly used by them in their rites of magic, probably came from them, to be employed in similar ceremonies throughout all the East. The rod, or caduceus, of Hermes, the western Mercury, intertwined with serpents, that sacred Asiatic symbol for ever occurring in the Mithriac mysteries, and the sacred thyrsi used by the frantic bacchanals in the mysteries of Isis, have, I conceive, a very near relation to the Brahmin staff and the Druid wand. The Persian youths, who, on the pompous procession described by Curtius, attended the horses of the sun, were arrayed in *white garments*, and bore in their hands *golden rods, or wands*, pointed at the end, in imitation of the solar ray.

ray.* This explanation immediately points out its allusion in the ancient mysteries which were all relics of the original solar superstition. It symbolized the solar beam that explores Nature's most secret depths, and penetrates into the abyss of matter. Diviners, therefore, in their lofty pretensions to be acquainted with her arcana, and, as if conversant with her mysterious operations in their nocturnal orgies, waved on high the solar wand, in circles imitative of the revolution of his orb.

I would by no means be understood as applying this observation to the *rod of Moses*, by which Aaron wrought before the hardened Pharoah the prodigies of Egypt. It unfortunately happens, that, in this as in many other delicate instances which have before occurred, the Mosaic and the Pagan customs, generally established in Asia, very nearly correspond, and it might be thought that I, therefore, ought to consider the latter as corruptions of the former; but the hypothesis which I have adopted; added to the allowed high antiquity of the Indian nation, does not always admit of my doing this. It should be remembered, also, that the Deity, out of

* See Quinti Curtii, lib. jji. cap. 3.

his indulgence to the weakness of human nature, permitted the Hebrew nation to retain in their ritual a few of the sacred symbols of their Asiatic neighbours ; as, for instance, that of *fire*, sanctifying the symbol by its adoption into a nobler and purer system of devotion. In truth, the rod of Moses was originally the pastoral wand with which he guided his flock ; from those flocks he was taken to be the pastor of Israel ; with that simple instrument he was enabled, by Jehovah, to awe the sovereign of Egypt, and to confound the magicians opposed to him. Those magicians, indeed, had their rods, such as we have described peculiar to their iniquitous profession ; but that of Moses, by annihilating the others, proved at once the superiority of its origin, and the irresistible might of him under whose auspices it was employed. Aaron, also, had his peculiar rod, that blossomed, was solemnly deposited in the ark, and, on all solemn occasions, ornamented the hand of the high priest of the Jewish nation. The heads of all the tribes had also their respective rods ; but these are to be considered rather as badges of distinction than as sacred symbols ; for *vir-*
ga

ga is frequently in Scripture used in the sense of sceptre.

The Druids, also, wore on their heads a tiara of linen, very much resembling, in form, that of the Brahmins, and which, in the preceding volume, it has been observed, consisted of a piece of muslin, many yards in length; and, as every thing in their worship had an allusion to the sun and planets, rolled round in form of a turban, to imitate the convolutions of the orbs. The Egyptian priests performing the sacrifice to the sun, represented in one of the plates of the second volume of this work, wear on their heads this tiara, which rises in the form of a *cone*; in Asiatic mythology, a constant emblem of the sun. The high priest of the Jewish nation wore a tiara of this kind, which was called *cidaris*; but, to prevent any mistaken allusion to the solar worship, a golden plate was placed on the front of it, on which was conspicuously engraven the awful name of Jehovah. These parts of the ancient dress and ornaments of the Asiatic priests are visible in the *crozier* and *mitre* of the episcopal order of Europe, now sanctified by their use in the service of that God who made the sun and all the host of heaven.

White

White being universally esteemed in Asia to be the emblem of purity, that purity which a thousand ablutions and ceremonial purgations were intended to inculcate, as well for the sake of religion as of health, in regions bordering on the torrid zone, in vestments of that colour, the priests of India, Persia, and Egypt, constantly officiated at the altar of Deity. The sagus, or holy vesture of the sacrificing Druid was also invariably white; their oracular horses, and the steers devoted to the sacrificial knife, were obliged to be of the same colour. The greater part of the habiliments of the Jewish high-priest consisted of the finest white linen; the dress of the highest class of the sacerdotal order of this day is white; nor can any vesture be imagined more proper for man when he approaches the spotless shrine of a Deity, whose eyes are too pure to behold iniquity. Before we quit this subject, it is worthy of observation, that, although we know the sacred tunic of the Druids, when engaged in religious rites, was white; yet it is not in our power exactly to ascertain the composition of that tunic; it was most probably of linen, but that article they could only have from the East, where
it

it was cultivated, and formed a branch of lucrative commerce in the earliest ages. The manufacture of linen was not introduced into Britain till the time of the Romans, and that valuable commodity, therefore, must have been brought hither by the Phœnician traders in exchange for the tin of the Cassiterides. Of that commerce I shall speak extensively in the succeeding section.

FINALLY, THE CIRCLE AND THE CRESCENT, THE FORMER THE PECULIAR CHARACTERISTIC SYMBOL OF BRAHMA, THE LATTER THAT OF SEEVA, WERE CONSPICUOUS ORNAMENTS OF THE SACERDOTAL ORDER OF ANCIENT BRITAIN.

ONE of the four hands of the Indian Deity Brahma, in all pictures and sculptures, is invariably decorated with a circle, which has already been declared to be the mystic emblem of revolving cycles, and often of the grand round of eternity itself.* The circular form in which the Druids delighted to erect not only their sacred but other edifices, their

* See Sonnerat's Voyages, p. 11. Calcutta, octavo edition.

circular mode of adoration, the tremendous circle used in magical incantation, and so essentially necessary to the designs of the sorcerer, that, without that circle duly described, no success attended his most elaborate efforts to conjure up from Erebus the subject dæmon; —all these added to various other facts before-enumerated, demonstrate their frequent use of and supreme veneration for this Indian symbol.

On the ancient gold coins found in the year 1749, in the middle of the ridge of Karnbre-Hill in Cornwall, thus denominated from the multitude of karns still visible upon it, coins, which, I conceive, are satisfactorily proved by Dr. Borlase to bear the stamp of the rude British mint in times coæval with the Druid power in these islands, among other symbols immediately referring to the Sabian worship of that sect, the circle, or wheel, constantly occurs, together with round balls, strung in rows, like beads or pearls, and rings pierced like the discus, which exhibits the exact resemblance of the *chakrâ* of Brahma. The more prominent object on all is the horse, which Dr Borlase, impressed with the idea of the fighting-chariots of the old Britons, takes to be the horse attached to the *Esseda*, designated

signated by the wheel. But, as these coins were found on so secluded and consecrated a spot, and have every mark of remote antiquity, I am of opinion, that the horse of the sun was intended by it, that sun of whose orb the wheel and the circle were the unvarying symbols ; and I am the rather inclined to indulge this opinion, on account of the occurrence of another symbol upon these coins, certainly much more connected with the rites of Druidism than the din of battle. It is the LUNAR CRESCENT, on the consideration of which, as a symbol of that order, I must now enter.

The crescent constantly adorns the image of Seeva, when accurately designed by the Indian artist. It is engraved on his forehead, and is probably intended to be allusive to his mythological union in character with Chandra, the moon personified. Now Seeva's more general appellation in India, is Eswara, and the remarkable similitude as well between the names as characters of Osiris and Isis, of Egypt, and the Eswara and Isa, of India, has been repeatedly pointed out. Isis generally bears on her head the lunar crescent, and the Greeks, imitating the Egyptians, placed that crescent on the head of Diana, particularly her

her whom they denominated Diana Lucifera. Various statutes of the latter deities may be seen thus ornamented in Mountfaucon's Antiquities. Eswara, however, it should be observed in the complicated Indian mythology, is not *married* to Isa, in her lunar capacity, as Osiris is to Isis, in the Egyptian; for Chandra shines to the Indians a male divinity; Seeva, or Eswara, means properly the *solar fire*, that fire which destroys and regenerates, that fire a vase of which he constantly bears in one of his hands; and the lunar light being but the reflection of the sun's, in that manner the character of the latter is, as it were, necessarily absorbed in the mythological character of the former. On this account Seeva is decorated with the crescent; and hence, in the Bhagvat Geeta, he is called "the God with the crescent at Benares."*

The Druids, on their great festivals, wore on their garments, or carried in their hands, a crescent of gold, silver, or other metal. This ornament has long glittered on the banners of the East, the auspicious emblem of rising power and expanding glory; but, in that signification the crescent could scarcely be appli-

* Bhagvat Geeta, p. 81.

cable to the sequestered Druids. The use of it, therefore, can only be considered as a custom, originating in a system of astronomical superstition, like that to which the Brahmins and the Druids were devoted, who attended with equal anxiety to the vicissitudes of that orb; and by her motions regulated their most sacred festivals. It was when the moon was *six days old*, according to Pliny,* that the latter marched in solemn procession to gather the hallowed mistletoe; and it was from that precise period, every thirtieth year, that they began to count anew the months and years which formed their celebrated cycle of that duration. In the second volume of Mount-faucon's Antiquities, opposite page 276, there is a sculpture that remarkably illustrates this relation to Pliny. It is on a bass-relief, found at Autun, and represents the Archimagus, bearing the sceptre, as head of his order, and crowned with a garland of oaken leaves, with another Druid, not thus decorated, approaching him, and displaying in his right hand a crescent of the size of the moon, when six days old. By the aspect and posture of the latter, he seems to be some Druid astronomer, in the

* Plinii Nat. Hist. lib. xxv. cap. 44.

act of informing his chief that the day of that high festivity was arrived, on which either the misletoe was to be cut, or the new period to commence its revolution. On the Karnbre coins it repeatedly occurs, and sometimes two or three crescents are seen on the same coin.

I cannot conclude this final head of the extensive parallel which has now been drawn between the Druid and Indian superstitions, without observing that there is another kind of circle repeatedly occurring among the stone monuments of the Druids, that of the *ellipsis*, which can scarcely fail of impressing the mind, that seriously reflects on all the proofs of their wisdom previously enumerated, that they were so far advanced in astronomy as to have known the elliptical courses described, in their revolution, by the heavenly bodies, a circumstance not suspected in modern Europe till the time of the ingenious Kepler, who was as great a geometrician as an astronomer. The hypothesis of Kepler, however, was by no means at first generally believed by astronomers, till Cassini and Newton, by their still profounder researches in philosophy, placed the matter beyond the possibility of doubt. This their veneration for the astronomical
symbol

symbol of the crescent may be also regarded as an additional proof that those crescent-like temples, in Anglesea and Orkney, which some have mistaken for amphitheatres, were really *temples to the moon*.

THE GENERAL RESULT OF THE PRECEDING OBSERVATIONS.

FROM the evidence above submitted to the candid reader, he will be able to form his own judgment concerning the truth or futility of the original proposition with which I set out, viz. that a colony of priests, professing the Brahmin religion, and educated in the great school of Babylon, actually emigrated, in the most early periods, from Asia, with the Japhetic tribes, who established themselves in Europe. To state precisely the exact æra of that migration is impossible at this distance of time; but, from the evident mixture of the leading principles and peculiar rites of the Sabian idolatry with those of the pure patriarchal theology, it must have happened after the period in which Belus and his descendants, the great corruptors of the Noachic system of faith, had introduced those idolatries among their subjects of the Greater Asia.

The Indians, at that time, formed a distinguished part of the Persian empire; for we have seen that their first dynasty, commencing under an iniquitous prince named Bali, destroyed by the bursting of a marble pillar at the very moment he was blaspheming his Maker, sate on the throne of Persia before the whole nation crossed the Indus, never to return. This general migration probably took place immediately after that fatal event, which so forcibly points to us, under the veil of Eastern mythology, the destruction of Babel, and the consequent dispersion. The Hebrew chronology places the dispersion, or, at least, the birth of Peleg, (at which period the Scriptures assert that event to have taken place,) in the 101st year after the flood; but, as that period seems too early in post-diluvian annals for so great an increase of the human species to have taken place, as must be supposed on the hypothesis of a vast empire formed, and Asia overflowing with numbers, and as we may without impiety embrace a system of chronology less perplexing to that hypothesis, so many learned men have adopted the Samaritan chronology, which computes that event to have taken place about the

400th

400th year after the flood. By this rational mode of computation, a variety of difficulties, otherwise scarcely surmountable, are got over. The remembrance of the grand dissolution might, by that time, have grown more faint in their minds, and their horrors so far abated, that they may, with less outrage to probability, be supposed capable of erecting a tower to brave the power of the Deity, who, in his wrath, had deluged the former guilty world; and the earth itself, by the powerful action of the sun and winds during this extended interval, better prepared in every region to receive the swarming multitudes that were now descending from the overcharged plains of Shinar, and all the mountainous regions of Asia, to the abodes destined for them by Providence. In adopting this, which appears to me the more plausible system, I would by no means be understood to intimate that no partial migration towards the countries nearer the eastern limits of the world, previously to the grand dispersion, might have taken place: on the contrary, I am very much inclined to believe that Noah himself, who lived 350 years after the flood, attended by the more virtuous of his descendants, disgusted with

the increasing idolatries of Shinar, did actually retire from that polluted plain, and lay the foundation of the great empires of India and China, as contended for by Raleigh and Shuckford; though their hypothesis of the ark, resting on the Indian Caucasus, cannot, consistently with the sacred writings, be maintained. One of my principal inducements for this belief is, that the pious patriarch is by this means removed from all participation in the counsels of that nefarious race, who, after the signal deliverance of their great ancestor from a watery grave, dared, by that erection of Babel, so atrociously to insult the power and providence of the Most High. But this subject, and others connected with it, will be hereafter discussed more at large in their proper place, the Indian History; and are here only noticed as preparatory to future strictures in this volume on the Institutes of Menu, which, in the main, may be considered as the work of that primæval legislator.

The sum, therefore, of the preceding remarks is, that the great outlines of the Brahmin creed of faith, consisting of an heterogeneous mixture of the principles of the true and false religion, were formed in the school
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of Chaldæa before they left Shinar: that after the dispersion, pursuing the decrees of Providence in the peopling of the world, they migrated from Persia, and the country in its neighbourhood, to regions still nearer the rising sun; bearing with them, across the Indus, the new-formed code of religious and political laws, afterwards enlarged, purified, and accommodated to their situation in a different region; a region in which innumerable ablutions and other local superstitions were indispensable: that they were still divided into many sects bearing the name of Brahma, Veeshnu, Seeva, and Buddha; and that Thibet, the highest and most northern region of India, was peopled with Brahmins of the sect of the last-mentioned holy personage, who appears from indubitable evidence to be the Mercury of the west: that these priests spread themselves widely through the northern regions of Asia, even to Siberia itself; and, gradually mingling with the great body of the Celtic tribes who pursued their journey to the extremity of Europe, finally established the Druid, that is, Brahmin, system of superstition in ancient Britain.

This, I contend, was the first Oriental colony settled in these islands. In the course
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of ages, their extensive commerce led hither Phœnician colonies in quest of that tin which they exchanged for the fine linen and rich gems of India. The Phœnicians, whose ancestors were educated in the same original school with the Brahmins, suffered not the ardour of Asiatic superstition to subside, but engrafted upon it the worship of the Tyrian Hercules, and other rites of that ancient nation. How astonishingly great that commerce was, and of what nature those rites were, are points which will be amply discussed in the Dissertation that follows.

END OF THE DISSERTATION ON THE ORIGIN
OF THE DRUIDS.

INDIAN ANTIQUITIES:

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V O L. VI
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PART II



A
DISSERTATION
ON THE
COMMERCE CARRIED ON IN VERY REMOTE AGES
BY THE
PHŒNICIANS, CARTHAGINIANS, AND GREEKS,
WITH THE
BRITISH ISLANDS,
FOR THEIR
ANCIENT STAPLE OF TIN;
AND ON THEIR
EXTENSIVE BARTER OF THAT COMMODITY FOR THOSE
OF THEIR INDIAN CONTINENT;
THE WHOLE CONFIRMED BY
EXTRACTS FROM THE INSTITUTES OF MENU,
AND INTERSPERSED WITH
STRICTURES ON THE ORIGIN AND PROGRESS
OF
NAVIGATION
AND
SHIP-BUILDING IN THE EAST.

STATE OF TEXAS

1880

THE COMMISSIONERS OF THE LAND OFFICE

TO THE HONORABLE THE COMMISSIONERS OF THE LAND OFFICE

OF THE STATE OF TEXAS

REPORT

FOR THE YEAR 1880

AND

THE COMMISSIONERS OF THE LAND OFFICE

OF THE STATE OF TEXAS

TO THE HONORABLE THE COMMISSIONERS OF THE LAND OFFICE

OF THE STATE OF TEXAS

OF THE STATE OF TEXAS

OF THE STATE OF TEXAS

A

DISSERTATION, &c.

GENERAL ARGUMENT.

The Hercules of Tyre probably the same Personage as the Chaldean and Indian Belus.—Hercules, under the Name of Melicartus, asserted by the Ancients to have first explored the Cassiterides for Tin.—And the Name BELLERUM, in Consequence, given by the ancient Geographers to the western Extremity of Cornwall.—A retrospective Survey taken of the Sciences and Commerce for which Phœnicia was most celebrated.—Some Account of their Trade to Spain, and the immense Riches anciently obtained from the Mines of that Country.—The Bullion of Spain transported in Phœnician Vessels by Way of the Mediterranean and Red Seas to India.—Their Communication from Gadira, the modern Cadiz,

Cadiz, with the British Islands.—An Account of the Tin-Mines of Cornwall, of the different Kinds of Ore found there by the Miners, and their Method of smelting and refining it; with a History of the Tin-Trade, during those most ancient Periods.—Its Importance to the Country at large insisted on, and the Policy and Wisdom of the Court of Directors in reviving this interesting Branch of British Commerce with India, stated as the just Subject of national Applause.—The successive Voyages undertaken by the Carthaginians and Greeks to Britain, on the same Errand, detailed.—The principal Articles that formed the ancient Commerce of Egypt and Persia enumerated.—The Origin and gradual Progress of the Science of Navigation and Ship-Building in Asia.

I SHALL commence this Dissertation and the observations which I have to offer relative to the ancient commerce carried on between the natives of this island and those of Asia, but more particularly the Phœnicians, by informing the reader, that the oldest classical appellation which we have for the extreme western point of Cornwall, called by

us the *Land's End*, is BELERIUM, misspelt indeed Bolerium in Ptolemy's Geography,* but restored to its right orthography by Diodorus Siculus,† who writes the word Belerium. Ancient British writers of the first eminence translate this word, “the Promontory of Hercules,” and both the original term and the translation bring back to our recollection that first Assyrian and Indian Belus, who, a celebrated Pagan writer, even the wise Cicero himself, affirms, was the true Hercules. Now that Hercules was the founder of Tyre; and the Tyrians themselves, in the time of Herodotus,‡ boasted that their city was then two thousand three hundred years old, which account, though exaggerated by a few centuries, is much nearer the truth than the vaunted origin assigned to most of the great cities of Asia, and is in a great degree consonant with the hypothesis here contended for.

That hypothesis is still more strongly confirmed by a retrospective glance on the mode of superstition predominant in Tyre; for the two principal deities, anciently worshipped in

* See Ptolomæi Geograph. lib. iii. cap. 3.

† Diod. Sic. lib. v. cap. 22.

‡ Ibid. lib. ii. cap. 43.

Phœnicia, were the SUN and MOON, the one under the name of Baal, or Belus, whose symbol was fire, so congenial with the Bealtine, or fires of Belus, in these islands, discoursed of above, and Astarte, the Ashtaroth of Scripture, who was represented, in the great temple of Hercules at that city, under the form of a female with the horns of a bull placed upon her head, and between them a precious gem, of great magnitude and splendor, which by night illumined the whole temple. Lucian, who relates this fact, calls that gem *λυχνις*, by some thought to mean the carbuncle, a precious stone fabled to shine brightest in darkness, and therefore the proper ornament of an idol intended to represent the silver empress of the night.

Another corroborative circumstance is, that the Phœnician mythological history, according to Selden, enumerates no less than three different Baals : first, Baalsamen, which signifies the *Lord of Heaven*, and means, in an appropriate sense, the Sun ; secondly, Cronus, or Baal ; and, thirdly, Zeus Baal, or Jupiter Belus. These are probably the respective nominal heads of the solar and other dynasties of that name, established in the earliest ages on the imperial thrones of Asia, and, doubtless,

less, all have immediate reference to and connection with the oldest or Assyrian Belus, canonized in the Sun, the great conqueror of the land and navigator of the ocean. The colonies that sailed to distant shores assumed the renowned name of the founder, and imparted it with the Phœnician worship to the regions and people which they visited.

Another name of the Tyrian Hercules was Melicartus, from Melek-carthe, which Bochart translates, *King of the City*,* and it is expressly asserted by Pliny, that Melicartus (corruptly written in our copies Midacritus) first brought tin from the island Cassiteris;† a Greek word which has exactly the same signification with Baratanac, probably a translation of it, for it means the *tin island*; but to what particular part of this remote country from Tyre they alluded by that term shall be more fully explained hereafter.

The principles of navigation, and of its sister astronomy, are universally ascribed by the ancients to the Phœnicians. We are informed by Sanchoniatho, in a fragment extant in Eusebius,‡ that Ourous, one of the

* Bochart's Canaan, p. 709.

† Vide Plinii Nat. Hist. lib. vii. cap. 56.

‡ Præparatio Evangelica, lib. i. p. 35.

most ancient heroes of that nation, took a tree which was half-burnt, cut off the branches, and first ventured upon the vast ocean. This assertion comes well enough from an atheistical Pagan writer, who discarded all belief of the deluge and the vessel of Noah; but the sons of the holy patriarch who witnessed that flood, and the building, according to just geometrical proportions, of that vessel; those who, for a whole year, had tenanted the watery deep, who had marked the fury of adverse winds, and the violence of the raging waves, doubtless knew something more of naval architecture and navigation than is here pretended. The authority of Moses himself may be fairly urged against this statement, for that writer expressly declares, that the sons of Japhet, that is, our Gomerians, in their first emigration from the continent of Asia, passed over into the islands and took possession of them: *by these were the isles of the Gentiles divided in their lands.* Gen. x. 5. This evidently confirms the hypothesis on which the History of Hindostan proceeds, that navigation, like most other sciences, was of ante-diluvian original, the principles of which were known to the Noachidæ and their immediate descendants, who

who settled in the districts where the ark rested, but all remembrance of which was in succeeding ages lost by those who emigrated to regions very remote from that favoured portion of Asia. If this had not been the case, how came it to pass, that, for many centuries afterward, the light of rising science, and all the principles as well as practice of the arts, generally deemed useful, flowed thence, as from a common centre, to illuminate distant nations, sunk in the grossest ignorance and barbarity?

Not less decisive is the voice of Pagan antiquity, in referring to that enterprizing race the invention of astronomy, and particularly of the constellation which we denominate the Lesser Bear, on the point of whose tail on the sphere is fixed the pole-star, that star, whose brilliant and steady light, emaning from the centre of the arctic circle, served and still does serve as an unerring guide to those whom conquest or commerce induce to traverse the pathless ocean. The Greeks, indeed, invading the rights of an older race, have attributed to Thales the honour of first classing together the stars in this asterism; but its prior name of PHÆNICE, frequently bestowed upon it even by the Greeks them-

selves, is a sufficient refutation of this unjust claim.

To the particular cultivation of these sciences and of that commerce which they extended in time to the remotest regions of the earth, the Phœnicians were irresistibly impelled by their situation on a narrow slip of land stretching along the shore of the Mediterranean Sea between the 34th and 36th degree of north latitude. Inhabiting a barren and ungrateful soil, they were obliged, by unwearied industry to correct the deficiencies of nature, and by extensive commercial enterprises to make the abundant wealth of distant nations and more fertile regions their own. They soon began to send forth colonies to all the surrounding nations that would receive them; they established an intercourse with all the islands of the Mediterranean Sea, and with the principal maritime cities of Persia, India, and Egypt. The ports of the Arabian Gulph were crowded with their vessels; they were the general factors of that Oriental world, in the very centre of which they resided, and all trade was carried on in Phœnician vessels; in a word, they were the BRITONS OF REMOTE ANTIQUITY.

For

For the reasons and on the grounds already stated to the reader in the preceding chapter, I have supposed that the earliest post-diluvian navigators of the ocean had the knowledge and use of the *magnetic needle* imparted to them by the father of the renovated world, or one of the sacred OGDOAS preserved in the ark, which was piloted through the raging billows by means of that wonderful guide, under the guardianship of Divine Providence. I see no reason to retract that opinion, for it is scarcely credible, that without it the first colonies from Asia could ever have reached in safety the distant and dangerous shore of Britain. By the same channel it probably came to the Phœnicians, who might have the art to keep it secret from the Greeks, as they did, for a long period, the rich source whence they derived that immense quantity of Tin with which they supplied the Asiatic markets. Leaving, however, uncertain though not improbable conjecture, let us advert to what genuine history records of the gradual progress of the Phœnician mariners in quest of that commodity towards the western limits of Europe. The reader will please to observe, that I am not now tracing the footsteps of the first settlers to Britain, but of that adventurous

race of merchants who first imported to her shores the rich productions of Asia and Africa, when population was increased, and kingdoms powerful though barbarous, were formed amidst her woody recesses.

To the islands scattered over the Mediterranean, and the neighbouring ports of the Asiatic continent, were probable confined the first rude efforts of Phœnician navigation. By degrees they grew bolder, and coasting westward along the shore of the Mediterranean, but seldom daring to lose sight of it, they discovered the southern point of Spain. That southern point was the mountain Calpe, or modern rock of Gibraltar, situated on the Fretum Herculeum, or Straits of Hercules, and the spot on which that hero is asserted to have erected the famous columns which bear his name ; or rather, to quit mythology, the vast rock of Calpe itself is one of those columns, and the mountain Abyla, on the opposite coast of Africa, is the other. They were thought to be the extreme boundary of his voyage westward, and the story of his opening these celebrated straits means only that he first explored him, and discovered the passage through them into the Atlantic Ocean. Calpe was many centuries afterwards

wards visited by the Moors, and called Gebeltaric ; whence, according to D'Anville, is corruptly formed its modern name of Gibraltar. At the foot of the mountain they built a city, which they also called Calpe, mentioned by Strabo as a celebrated city in his time. Other ancient geographers denominate this city Cartea, or Malcarteia and Heraclea, deriving the former name from Melicartus, the latter from Hercules, the well-known appellatives of its supposed founder.* It was some time before the Phœnician navigators had courage to pass through these dangerous straits, and explore the great and united ocean beyond it. Their eager desire, however, to add the wealth of Europe to that of Asia, getting the better of their fears, induced them, at length, to undertake the perilous voyage, and they settled their first colony beyond the straits, at the isle of Gadir, or Gades, on the western coast of Andalusia, which is the modern Cadiz.† Here they built a city very celebrated in antiquity, and erected a magnificent temple to Hercules, which was visited by Apollonius Tyanæus, and is de-

* See Bochart's *Canaan*, p. 682.

† Strabonis *Geograph. lib. iii. p. 169, ubi supra.*

scribed with its splendid ornaments by his biographer Philostratus. From this city, possessed of one of the most spacious havens in the world, the Phœnicians soon commenced with the people of that country, which abounded in mines of gold and silver, an immense traffic for those precious metals. These were again exported to India, which then, as now, probably swallowed up, as in a bottomless gulph, the bullion of Europe, and, in return, they received the silk of Serinda, and the fine linen and rich gems of the peninsula.

The reader who adverts solely to the present aspect of Spain, and the indolent character of the people, will be rather surprised to read this account of the immense riches formerly dug from the bowels of that country, and the commercial exertions of the ancient inhabitants. But, in reality, no fact in history can be better proved, than that mines, scarcely less productive of gold and silver than those of Peru and Potofi, which are now the object of laborious research, were in these early periods worked, as well as those situated in the Montes Mariana, in Andalusia, mountains that skirt the territory of Seville, and now called Sierra Morena, as those of Corduba, now Cordova, a region so fertile in
golden

golden ore, as to be called by Silius Italicus, who was a native of this country, *Aurifera Terra*,* the land that bore gold. Of this abundant wealth of the ancient Iberians, evidence may be found in the early historical pages of all the great empires of the world, that carried on any commerce with them; and, in particular, we are informed by a Greek writer of great and merited celebrity, that, when the Phœnicians first came among them, they found the inhabitants wallowing in gold and silver, and so willing to part with their riches, from their ignorance of the value of those precious metals, that they exchanged their naval commodities for such an immense weight of them, that their ships could scarcely sustain the loads which they brought away, though they used it for ballast, and made their anchors and other implements of silver.†

It is asserted, though perhaps with some degree of exaggeration, by Diodorus Siculus,‡ that when the Pyrenæan mountains, so called from the fact about to be related, were, in remote periods, on fire, owing to the incautious or criminal conduct of some shepherds,

* Silius Italicus, lib. iii. verse 401.

† See Aristotle *De Mirabilibus Auscult.* Opera, vol. i. p. 1165.

‡ See Did. Sic. lib. v. p. 358.

in kindling a fire too near one of its forests, the flames burnt with such fierceness for many days, that it spread itself almost over the whole ridge, and that the intenseness of the heat melted the silver in the mines, and caused it to run down in rivulets along those hills.

Again we are informed by the same respectable Roman writer, cited so often before,* that when the Carthagenians, the next in order of the successive invaders of Spain, first came thither, they found silver in such amazing plenty, that their utensils, even their very mangers, were made of it, and their horses shod with it. And Pliny mentions several rich mines of silver dug there by the Carthaginians, one of which called Bebel, from the finder of it, yielded Hannibal three hundred pounds of silver per day.†

The excellent historian Livy,‡ also acquaints us, that Scipio, upon his return to Rome, carried with him fourteen thousand three hundred and forty-two pounds of silver, besides an immense quantity of coin, clothes, corn, arms, and other valuable things. L.

* Strabo, lib. iii. p. 256.

† Ibid. lib. xxxiii. cap. 6.

‡ Liv. lib. i. ii. and iii.

Lentulus is said to have brought away a still much larger treasure; to wit, forty-four thousand pounds of silver, and two thousand five hundred and fifty of gold, besides the money which he divided among his soldiery. L. Manlius brought with him twelve hundred pounds of silver, and about thirty of gold. Corn. Lentulus, after having governed the Hither Spain two years, brought away one thousand five hundred and fifteen pounds of gold, and of silver two thousand, besides thirty four thousand five hundred and fifty denarii in ready coin; whilst his colleague brought from Farther Spain fifty thousand pounds of silver.

What is still more surprising, is, that these immense sums, amounting in all to one hundred and eleven thousand five hundred and forty-two pounds weight of silver, four thousand and ninety-five of gold, besides coin and other things of value, were obtained from that country in the short space of nine years; for just so much time elapsed between the first and the last of these Roman prætors; and not long after they had been as severely pillaged, in all probability, by the Carthaginians.

The Phœnicians having established themselves, as well as the religious rites of their country, at the great commercial port of Gades, or Cades, were not long in making themselves masters of other places on the rich Iberian coast, equally convenient for carrying on that traffic for which they were so celebrated. The principal of these was Tartessus, situated still farther west, and the capital of an island of the same name, formed by the two streams by which the Bætis anciently emptied itself into the sea, though one of them has been since stopped up. To these two grand emporia were brought down that river the gold, silver, and other valuable productions of Bætica, the modern Andalusia, to be conveyed thence in Phœnician *bottoms*, (to use a modern maritime phrase,) to those countries of the east, Persia, Assyria, India, and Egypt, the magnificence, luxury, and military enterprizes, of whose sovereigns rendered constant supplies of those precious commodities necessary to them.

Their own country itself produced many articles of superior elegance, very eagerly sought after by those ostentatious and effeminate nations of Asia. Among these the
principal

principal were the purple of Tyre, their rich tapestry, and the exceeding fine linen fabricated in the Phœnician looms. The glass of Sidon, the mother of Tyre, was another celebrated commodity, exported to the countries of Asia by the Phœnician navigators; and, in the extensive manufacture of this curious article, they had arrived to such a point of perfection, that not only plates nearly as large as any fabricated by the moderns were made in the glass-houses of Sidon, from the fine sand found on the shore of that city, but we also know, from very high authority in antiquity, that they possessed the art of giving them a variety of the most striking and beautiful colours. The curious artificers of that nation were also celebrated for their skill in working in those costly metals that formed the cargoes of their ships, and in the ivory which they obtained in abundance from the neighbouring regions of Africa. For that expensive and beautiful dye above-mentioned, which rendered the Tyrians famous over all the world, and which at this day is for its transcendent excellence appropriated to adorn the robes of princes and magistrates, they are said to have been indebted to mere accident. A sheppard's dog, incited by hunger to range
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the sea shore, near that city, seized with his teeth the shell of the fish called MUREX, which, breaking in his mouth, stained it of the colour so much admired. The genius of that mercantile people took advantage of the accident, and, collecting a quantity of those shells, impressed the colour obtained from them on the stuffs fabricated by them; which soon became in general request throughout the East, especially at the courts of princes. This species of purple fish is said to have been peculiar to the shore of Tyre, and is thought to be extinct: at least it is not now to be found there. The antiquity of the discovery is evident, from this colour being so particularly mentioned both in the Mosaic writings and in Homer.* The astonishing perfection at which they had arrived, in the working in metals and ivory, is demonstrated by the sumptuous designs of that kind undertaken and finished by the artists of that nation in the temple of Jerusalem, and in the palace of the magnificent Solomon; the former abounding with emblematical devices in cast or sculptured gold, and the latter

* Consult Exodus, chap. xxv. v. 4. and Homer's Iliad, lib. vi. v. 219.

adorned with that famous ivory throne, inlaid with pure gold, of which Scripture itself declares *the like had not been made in any nation*.^{*} For proof of their great advance in the elegant arts of engraving and sculpture, not less than of their prodigious wealth, we need not go farther than the temple of Hercules, in their own city of Tyre, which was not less remarkable for the superb mythological devices, the egg of creation, the nymphæa, and the serpent, that adorned its walls, than for those two magnificent columns, the one of massy gold, the other consisting of a solid emerald, which were seen and described by Herodotus, on his visit to that city; the latter of which, he asserts, by night, illuminated the whole of that vast fabric.[†]

Freighted with the valuable articles of commerce above enumerated, but chiefly with gold and silver in ingots, which India ever ingulphed, or formed into ornamental vases for the use of the temples and palaces of Asia, the Phœnician ships sailed directly up the Mediterranean to a port situated on its most southern extremity, and nearest the Arabian Gulph, called in the Itinerary of Antoninus

^{*} 1 Kings, chap. x. v. 20.

[†] Herodot. lib. ii. p. 108.

Rhinocorura. It is remarkable, that this important haven is not so much as mentioned by so accurate a writer as D'Anville, in his account of Idumæa, though Raphia the modern Refah, in its neighbourhood, is particularized for an event of far less moment in the annals of ancient history.* Hence they were conveyed by land-carriage to Arsinoe or Suez, the first port on the Arabian Gulph; and, being there re-shipped, were transported down the western shore of that gulph and through the straits of Babelmandeb, along the coasts of Arabia Felix and Deserta, and the maritime provinces of Persia, to the Gulph of Cambay and the continent of India, where they were landed either at Patala, the present Tatta, situated at the mouth of the Indus, or Barygaza, the present Baroach. Having taken this transient view of the general route pursued by the Phœnician navigators to India, previous to their discovery of the Cassiterides, and the western coast of Britain, we must return to their flourishing colonies of Gades and Tartessus, on the coast of Spain, to trace the gradual steps which led to that Discovery.

* See D'Anville's Ancient Geography, vol. i. p. 405.

A SHORT HISTORY OF THE COMMERCE
 ANCIENTLY CARRIED ON BETWEEN
 PHŒNICIA AND THE BRITISH ISLES,
 AND BY THE PHŒNICIANS TO THE
 EAST, FOR TIN.

THIS valuable article of commerce owes its name to an Oriental word, intended to denote the appearance which it bore to those Asiatic traders who first explored for tin the mines of the Cassiterides and Cornwall ; for, when brought in its crude state from those mines, it is of a dark colour, and, when washed, resembles slime or mud. Pliny and other ancient naturalists denominate it *plumbum album*, white lead, and, in truth, lead and silver are said by the chemist to enter largely into the composition of this ore. We read of no other country that anciently produced tin, at least, in such abundance and purity as the British isles, nor of any people who extensively traded in it, except the Phœnicians ; and that trade must have commenced early indeed, since it is enumerated among other metals that passed through the purifying fire

in the Pentateuch of Moses,* which cannot be dated less than 1400 years before Christ. It is also mentioned by Homer,† who had too accurate a knowledge of the progressive improvement of mankind in arts and sciences to assign any discoveries to an improper age. But, when those mines are well examined, they exhibit internal testimony of the remote, I had almost said the incalculable, period at which they have been wrought; for, in digging to the depth of fifty fathom, the miners frequently meet with large timbers still entire. These are vulgarly supposed to have been deposited there by the waters of the deluge: but that idea tends to violate M. De Luc's rational hypothesis, which supposes that deluge to have been effected by the sinking down of the ancient continents; and, without going quite so far back in the annals of time, we may reasonably enough conclude them to have been left there by Phœnician workmen, the props and pillars of the exhausted mines, especially when we read, in the same author, that pick-axes, brass nails, and other utensils,

* Numbers, chap. xxxi. v. 22.

† Homer's Iliad, lib. ii. v. 25.

are found, at the greatest depths, intermixed with those timbers.*

Tin is itself so beautiful a metal, forms such elegant domestic utensils, the most elegant next to silver, and in the various processes it undergoes by fire makes so considerable an ingredient in other manufactures, that the solicitude of all nations, and especially those addicted to commerce, to obtain it, is by no means to be wondered at. The great use indeed of tin, and the preparations made from it in the various branches of trade and manufactures, particularly in painting, gilding, and pottery, as well as in the science of chemistry, and anciently in that of medicine, though, from its poisonous qualities, generally and justly rejected by the modern practitioner, is too well known to be here insisted on. The Tyrians themselves are supposed, by solutions of this metal, to have greatly enhanced and fixed the beautiful colour of their purple dye,† and our own manufactured broad-cloth is affirmed to owe its decided superiority in the markets of Europe to its being dyed *in the grain*, as it is called, in

* See Childrey's Natural History, p. 8.

† See Pryce's Mineralogia Cornubiensis, p. 17.

liquids, where this metal has formed a principal ingredient.

There is a very clear and particular account given in the Philosophical Transactions of the method of obtaining and preparing this metal in the mines of Cornwall, which, though too full of technical phrases, known only on the spot, to be inserted at length, may yet be acceptable to the mercantile reader, in the abridgement which is here presented to him.

The ore is only to be obtained by the most elaborate exertions of the miner. The veins descend to very great depths, sometimes to the distance of sixty feet from the surface, and it is often found imbedded in rocks, scarcely penetrable by the tools of the workmen. It is also a labour of extreme hazard, from the arsenic with which tin is strongly impregnated; and sulphureous damps and malignant vapours, exhaled around him, often interrupt his progress through those regions of darkness and peril. Superstition has added to the terrors of the scene, for, to use the express words of my author, “ The labourers tell stories of sprights of *small people*, as they call them; and, that when the damp arises from the subterraneous vaults, they hear strange noises,

noises, horrid knockings, and fearful hammerings. These damps render many lame, and kill others outright, without any visible hurt upon them.”*

The ore is differently denominated as it is found in its more pure or mixed state. That which is called *boll* is properly the *mine-tin*, as it is obtained from the load, or vein, and it is usually dug up in grains or chrystals of a black colour, the blacker the richer, and in lumps of various magnitude. *Shode-tin* is that which is mixed with stony and earthy matter, found in masses of much larger size, and in the immediate vicinity of the vein. The *stream-tin* ore is a name given to particles of the mineral, broken off from the *load*, running through high mountainous regions, by the waters of the deluge (say the miners,) or by other impetuous floods, and carried by the violence of the stream into deep valleys at a great distance. There, collected into heaps, they have, in different places, formed strata of considerable depth and breadth, and lie intermixed with the gravel and clay which was torn away with them from their original bed. The fragments are found in the form of

* Dr. Morret on the Cornish mines, in *Philosophical Transactions* Abridged, vol. ii. p. 572.

small pyramids, of various planes, and are of different sizes, from the bigness of a walnut to the finest sand. Of this sort, principally, well washed, stamped, and purified by repeated fusion, is made the finest *grain tin*, and its superiority to the metal dug from the mine arises from its being free from the mundic, and other mineral substances, which generally impregnate and contaminate the latter.

Having discussed the various kinds of this metal in its original state, we come to their mode of preparing, or, as the miners call it, *dressing*, the tin. When the ore is dug out and landed, and the larger masses are broken by men appointed to that duty, it is brought on horses, to the stamping-mills; where, being placed in a great wooden receiver, called the *coffer*, it is ground to small sand by massy iron weights, fastened to the ends of strong beams of timber. These timbers are called *lifters*, are made of heart of oak, eight or nine feet in length, and being raised up and depressed by means of a water-wheel, are precipitated down with prodigious force on the matter to be pulverized. The ore, thus reduced to powder, is, by an ingenious process, particularly described in the paper referred to,

to, washed out of the *coffer* into a long and deep trench, cut in the floor, called *the launder*, stopped only with turf at one end, through which the water gradually oozes away, while the ore itself, purged of its impurities, subsides and settles at the bottom. The sand and gravelly particles, which, being lighter than the ore, remain uppermost, being removed, the ore is repeatedly washed and cleansed, and in the end is sent to the smelting, or, as with more propriety they term it, the *burning-house*. There, being as repeatedly subjected to the fire to free it from the mundic and other foreign substances, still intimately adhering to the ore, and afterwards, passing through the more intense heat of the *refining-fire*, where all its remaining dross is skimmed off, the burning mass is poured into moulds, holding exactly three hundred and twenty pounds weight; and, being left to cool, it is, in that state, called *block-tin*. Before they are quite cold, the blocks are stamped with the house-mark of the smelters, a pelican, a plume of feathers, or some such device, in proof of the genuineness of the metal; they are then weighed, numbered, and sent to the nearest town that has the privilege of coining to be assayed, and to receive the

the

the farther impression of the duchy seal, which bears a lion rampant, the arms of Richard Earl of Cornwall, without which impression it cannot become an article of merchandize, domestic or foreign. This is called the *coinage* of the tin, and every one hundred weight of tin thus coined, by ancient usage, pays a duty of four shillings to the Duke, producing a vast, though of necessity a varying, income to the heir-apparent of the British crown; an income, however, that must constantly increase, as new channels for the exportation of this useful article are discovered, or the old ones enlarged by the merchants of England, in their private or collective capacity; a circumstance which proves the obligation of the present illustrious possessor of its revenues, to the laudable exertions of the present enlightened Court of East India Directors, to revive that important branch of ancient commerce with Asia.

The towns appointed for the coinage of tin were anciently only four in number, situated in those districts of the county which were considered most convenient for the tanners, by name Leskard, Lestwithiel, Truro, and Helston. The nearest of these, however, was found too far distant from the tanners on its
western

western extremity ; and, for their accommodation, Charles the Second added Penzance. To one or other of these places the tin is brought on the four great quarterly festivals of the year, and so great has the consumption increased, that though, when Carew wrote his volume, the total annual amount of the tin sold did not exceed £40,000 it has of late years risen to near £200,000.—Gough's new edition of Camden, p. 10.

The important light in which the British legislature have ever regarded this national source of industry and wealth, in periods long antecedent to those in which our woollen manufactures came to be in such high estimation in the markets of Europe, the grand STAPLE commodity of the country, is conspicuously evident in the great number of immunities and charters granted, at different æras, by English kings and parliaments, to the inhabitants of this western province, by way of encouragement to them, to direct their whole attention to the native riches treasured in the bosom of their favoured country ; immunities so various, and charters so extensive in their concessions, that this part of Cornwall seems, as it were, a separate kingdom, governed by a parliament of its own, and

and subject to a jurisdiction peculiarly calculated for the convenience and comfort of the natives. The chief power in these districts is vested in an officer called the lord-warden of the stannaries, who is supreme in law and equity, in cases that affect not the life of the subject, and from his sentence there is no appeal but to the Duke of Cornwall, in council, and, in case of the death or minority of that prince, to the crown.

Having taken this general survey of the method of exploring and preparing, for the public market, the tin found in the mines of Cornwall, having also given the reader some idea of the importance of this branch of trade to the kingdom, as well as of the quantity of metal coined in that western county, a survey, however, only introductory to more particular and detailed statements hereafter, it is now necessary that we should revert our eye to the two infant colonies which we have seen the Phœnicians were able to establish at Gades, or Gadir, on the *Fretum Herculeum*, and at the still more western city of Tartessus. The account which I have above given, from ancient authors of the greatest authenticity, supposes the gold and silver mines of Bætica already explored and wrought, and the metal
found

found in them, as having passed through the smelting and refining-house in order for exportation, previous to the arrival of the Phœnicians on that coast. This circumstance exhibits very forcible proof of the rapid progress made by the Celtic colonies, who established themselves in Spain in the science of metallurgy, and without admitting all the romantic claims made by the historians of that nation, who insist upon it, that their empire was founded by Tubal, the fifth son of Japhet, about the one hundred and fortieth year after the flood,* full credit may be allowed the first post-diluvian settlers, according to the hypothesis of these volumes, for carrying away with them from Shinar a considerable portion of information in a science which made the ante-diluvian Tubal-Cain so renowned in his generation, and the remembrance of which, doubtless, was not wholly erased from the minds of the Noachidæ. To those, however, who may pertinaciously reject our reasonable hypothesis, other causes of early improvement in that laborious branch of science, will, upon reflection, without difficulty, be acceded to, as for instance, the accidental burning of vast

* Vide Sanchoniatho in Berosus, and Josephi Antiq. Judaic. lib. i. cap. 3.

forests, which history asserts was the case with those of the great Pyrenean range which dissolved the metals then lying nearer the surface of the earth, or fires kindled on the shore by shipwrecked mariners for the sake of warming themselves, or dressing their provisions, which might easily have happened on the Cornish shore, where the tin-ore, according to Dr. Borlase,* is frequently washed down from the high hills, whose summits, or sides, have been bared by the violence of tempests and mountain torrents, or broken by shocks of thunder.

It was not only gold and silver for the production of which the mountains of Spain were anciently famous ; they had, also, rich veins of copper, which according to Sir H. Mackworth, on the subject of Mines, p. 151, always grows in the same places with gold and silver, and greatly participates of the nature of those metals. This too must have proved a valuable discovery to the other Phœnician merchants, since we know, from Homer and other Greek writers, that the ancients took great delight in having their domestic utensils, arms, and accoutrements, of

* Natural History of Cornwall, p. 164.

brass, which is only a factitious metal, formed by a mixture of the *lapis calaminaris* with copper in fusion ; and this process must have been known to mankind before the flood, or Tubal-Cain could never have been *the instructor of every artificer in BRASS and iron*. Add to this that copper and brass in the more ancient periods of the world were the universal medium by which commerce was carried on, at least in the western regions of the globe. A piece of brass stamped with the figure of an ox, whence Pliny derives the word *pecunia*, was the only money known in Rome, during the early ages of that republic. It was called an Ass ; supposed to be derived from *Æs*, brass ; and hence the public treasury was called *ærarium*. It was not, according to the same writer, till the year of Rome 484, that silver money began to be coined in that capital ; and their first gold coinage did not take place till the year of that city 546, above sixty years after. The current coin, also, of our rude British ancestors, notwithstanding they were not actually without gold and silver before Cæsar's invasion, consisted either of coined brass, or *annulis ferries*, iron rings, whose value was according to their weight ; and, since Cæsar affirms, *ære utuntur importato*,

importato,* “the Britons use brass imported by foreigners:” it is more than probable that the Phœnicians, retaining the Spanish bullion for the Indian ports, gave the Britons brass in exchange for the tin of the Cassiterides. But of this subject we shall discourse more at large presently; let us return to their settlement of Gades.

If Pliny may be credited, that division of Spain called Lusitania, now Portugal, besides the gold which was rolled down with the sands of its celebrated Tagus, of which most pure metal the sovereigns of that country are said at this day to possess a sceptre, abounded in mines of lead, whence the inhabitants of Meidabriga, one of its cities near the lead-mines, now Armenha, are by him denominated Plumbarii, and also produced a small quantity of tin, of an inferior sort, and found generally in an arenaceous state.† After all, though this account is far from being improbable, no very great stress is to be laid upon the information, as the ancients did not make that nice discrimination in regard to these metals which the more minute investigations of the moderns in mineralogical science enabled them

* Cæsar's Comment. lib. v. p. 92.

† Plinii Nat. Hist. lib. xxxiv. cap. 16,

to make ; for, according even to Pliny, in the very chapter cited, they considered *lead* and *tin* as only two different stages of one and the same metal. Tin was called *plumbum album*, and esteemed the purest ; and the metal which we call lead was their *plumbum nigrum*. This small quantity of tin, if indeed it were tin, to be met with in Lusitania, probably urged the Phœnician settlers of Gades and Tartessus widely to explore the western world for increased stores of so useful yet so rare a metal ; and launching more widely into the wide ocean, and holding a course still more westerly, they in time discovered the Cassiterides, by which are now universally understood the Scilly islands.

These celebrated islands in the annals of commerce derive their name from *κασσιτερον*, a Greek word signifying *TIN*, and which is the exact translation of the Phœnician *Bratranac*, or the land of tin, whence *Βρετανικη* and Britain. This was their foreign appellation, given them, as may be supposed, by merchants solicitous to distinguish the place by a name expressive of its principal production. The original British appellation of these islands is said to be *SYLLEN*, or *rocks sacred to the Sun* ; a circumstance by no means improbable,

improbable; when we consider the monuments of the solar superstition yet remaining among them, of which some have been described in the preceding sections, and many more probably yet remain unexplored. Wherever the Heraclidæ and the Belidæ came, they left striking memorials of that first and favourite superstition of mankind. They were also called by the ancients the *HESPERIDES*, or Western Islands; but by whatever name they were distinguished, the western extremity of Cornwall, which is narrow and prominent to the eye that anciently surveyed it from the Cassiterides, might appear of an insular form, must be included in that name, for there lay the grand store-house of the commodity, in quest of which they had travelled, by a tedious and dangerous navigation, from Tyre, in the 34th to a country in the 50th degree of north latitude. They saw, with delight, the dark grains of this valued metal scattered plentifully over the shores of the new-discovered region, and from its slimy appearance denominated it טין, *mud*; whence was formed its Cornish name of *Stean*, and the Latin word *stannum*.

The Scilly islands are very numerous, but ten are of principal note, and exhibit the
marks,

marks of having been in a state of vigorous cultivation, and extremely populous in ancient periods; five only are inhabited; the most considerable at present of which is St. Mary's, being about nine miles in circumference, and containing about 700 inhabitants. The next in size is 'Trescaw; and, from the ruins of an abbey and other buildings upon it, appears formerly to have been well-peopled, though at present scarcely forty families are to be found in its whole extent. This island is remarkable for being the only one which retains any vestiges of a tin-mine. The light-house is erected on St. Agnes, one of the smallest islands of this cluster, and is a structure equally noble and useful in a sea of very difficult and dangerous navigation. Presumptive evidence and obscure tradition incline the naturalist, who takes a view of the abrupt appearance and totally altered state of these islands, from what they are historically described to have been, to believe that some dreadful convulsion of nature has taken place in this region; and that the greater part of them have been shattered by some earthquake, or submerged by some tremendous irruption of the surrounding ocean. They are no longer celebrated for lead and tin;

no longer do they allure the avaricious merchant; and the Asiatic mariner no longer bears to their spacious harbours the jewels and spices of the fragrant East; but they remain and long will continue to remain an awful monument of the vicissitudes of nature and the wreck of time.

The principal foundation for a belief in this change rests upon a passage in Diodorus Siculus, which I shall presently insert at length, and which seems to prove that a part of these islands was once situated so closely adjoining to the continent, that, when the tide was low, a passage over into the island might be easily effected at the recess of the waters, and that the miners actually conveyed the tin over in carts to Ictis, one of those islands, where it was bought by the merchants, and exported thence into Gaul. At present, however, the nearest of the Scilly islands is distant from the continent at least nine leagues, and either Diodorus must have been grossly misinformed, or the intermediate land must have been swallowed up in the deep; a circumstance which I have observed deserves some credit from traditions current in that part of Cornwall.*

* Borlase's Natural History of Cornwall, p. 177.

Mr. Carew, in his Survey of Cornwall, a book written nearly two centuries ago, and the obsolete language of which has not entirely obscured the elegance and spirit with which it is penned, has in the following passage, which I have copied verbatim, recorded the sentiments of his countrymen on this subject, and at the same time establishes the truth of the actual recess of the sea.

“The sea gradually encroaching on the shore hath ravined from Cornwall the whole tract of countrie called LIONNESSE, together with divers other parcels of no little circuite; and that such a countrie of Lionnesse there was, these proofes are yet remaining. The space between the *Land's End* and the Isles of Scille, being about thirtie miles, to this day retaineth that name, in Cornish *Lethowsow*, and carrieth continually an equal depth of forty or sixty fathom, (a thing not usual in the sea's proper dominion,) saue that about the midway, there lieth a rocke, which at low water discovereth its head. They term it the Gulphe, suiting thereby the other name of *Scilla*. Fishermen also casting their hookes thereabouts have drawn up pieces of doores and windowes. Moreover the ancient name of Saint *Michael's Mount* was Caracloase in

Cowse, in English the hoare rocke in the wood, which now is at every flood incompassed by the sea, and yet at some low ebbes roots of mightie trees are discryed in the sands about it. The like overflowing has taken place in Plymouth-Haven, and divers other places.”*

Situated nearly opposite to the coast of Galicia, in Spain, the voyage from Gades to the Cassiterides might be accomplished by the Phœnicians in no great length of time; and, under the guidance of Spanish mariners, who were doubtless not acquainted with the navigation of that part of the Atlantic, at no very imminent hazard. What the particular articles of commerce which they brought with them to Britain, and what they carried back in exchange, at that early period, were, we have the good fortune to have express information from so authentic an author as Strabo. “The Phœnicians,” says that writer, “imported from Gades into Britain salt, pottery, and utensils of brass; they exported from Britain tin, lead, and the skins of beasts.”† It is remarkable, that Pliny, in the very same chapter in which he relates that such a quan-

* Carew's Survey of Cornwall, p. 7.

† Strabonis Geograph. lib. iii. p. 146.

tity of lead was found in Britain, that it became necessary to enact a particular law, to prevent its being dug up in such an abundance as might tend to depreciate its value, acquaints us, *India neque æs neque plumbum habet ; gemmisque suis ac margaritis hæc permutat* : India itself has no mines of copper or lead ; but is content to barter for these commodities her precious gems and pearls.* By this means we are immediately enabled to discover what was at least *one* of the principal articles which the Indians derived from Britain, and of what nation were the merchants who trafficked in it to that distant coast ; even those who so assiduously explored it in the farthest regions of the west.

The articles used in exchange between the two nations deserve some consideration. On the one side were given salt, pottery, and brass ; on the other, tin, lead, and skins. By the first article it appears that the art of procuring salt from the waters of the ocean, or the practice of digging in their own abundant mines for rock-salt, was not then known in Britain : yet to a race living on an island, of which the surrounding sea and the numerous

* Plinii Nat. Hist. lib. xxxv. cap. 17.

rivers were plentifully stocked with fish of the most excellent sort, salt, either marine or fossil, for preserving and pickling it, if not for their own use, (since Cæsar asserts, though with no shadow of probability, they entirely abstained from eating fish,) yet for the use of others, and the purposes of commerce, was indispensably necessary, as well as for seasoning and preserving the flesh of the beasts killed in hunting, and whose skins, we see, formed also a material article of barter. The salt imported hither by the Phœnicians was, probably, of the fossil kind, and obtained from the mountains of Catalonia, in Spain, where are stupendous mines of rock-salt, probably wrought in the remotest periods by a people naturally led to subterraneous researches, by the vast profit arising from those which they possessed of metal. Such were the principal uses to which our painted ancestors applied the salt brought to them by the Phœnicians, no doubt in very large quantities, as our forests abounded in game, and our coasts probably then as now swarmed with overflowing treasures of the choicest fish; that game and that fish, which, preserved from putrefaction by this pungent and powerful ingredient, possibly made no small

part

part of the cargo which that maritime race carried away with them from this island, to support the crews of their vessels during their long voyages to distant and different regions of the earth. If, however, to *them* and to *their* fleet, in that infant state of navigation, this grand article of naval consumption was so immediately, so indispensably, necessary, how much more so, and in what an astonishingly increased proportion must it be to the modern Phœnicians of the western world : to us, whose innumerable fleets cover the ocean, and whose sails are expanded (oh ! may they long continue so !) in every climate and almost every harbour of the now circumnavigated globe. When we consider the immense quantity of salted provisions constantly laid up in magazines at home for the use of the greatest navy that ever the world beheld, and the amazing expenditure of the same commodity in such as are annually exported to the plantations, how much reason have we to applaud the patriot spirit, so similar to that displayed in respect to the highly increased exportation of the ancient national staple, TIN, and other articles of British growth and manufacture, by the Court of Directors ; that spirit, I say, which explored the bosom of our own rich country

country for the latent treasure, and which has thereby not only prevented the sending abroad some millions of the national wealth for foreign salt, but by diligently working the great mines of rock-salt discovered in Cheshire and other provinces of Britain, and promoting the vigorous domestic manufacture of it, has given employment and bread to so many thousands of the industrious poor. Add to this that other most important consideration, that the national revenue is, in all these cases, proportionably improved, as must be evident to the reader, when he is informed, that the gross duty on salt annually amounts to nearly a million sterling. These reflections will, I trust, not be considered as wholly irrelevant to the subject: for I think it my duty, as a friend to my country, to make these statements; that, whatever may be the event of the present convulsed order of things in Europe, we may fully know, learn properly to value, and diligently to improve, the inestimable blessings bestowed by Providence on these islands.

With respect to the POTTERY asserted by Strabo to have been anciently imported into this country, it will scarcely be doubted, that the Phœnicians of Sidon, who, from the fine
sand

sand and pebbles scattered over their shores, finely ground together and mixed with the ashes of burnt vegetables, could manufacture such excellent glass, were also able, by a similar process, from the various species of argillaceous earths which that part of Asia affords, to fabricate porcelain of as various kinds and degrees in fineness; as well the splendid painted vase for the palaces of Syria, as the more homely utensils for the rude Briton, who, now, spurning the vulgar drinking-horn, quaffed from them the fermented liquor, extracted from barley and other vegetable productions of his country, which animated him to the battle, with as much ardour as the nobles of Babylon regaled on the sparkling beverage pressed from the delicious grape of the palm and the cypress. The pottery of Sidon would not fail to be proportionably improved, as, from their proficiency in their grand staple manufacture of glass, they could not want either skill or materials to give their earthenware that shining vitreous envelope which equally tends to beautify and preserve it. How greatly in this respect, also, is the scene changed! Sidon and her daughter, Tyre, are no more, and the British manufacture of pottery is not exceeded by any thing of the kind produced

produced in Europe, while her porcelain, especially that manufactured at Chelsea, is making rapid advances to rival even the Oriental. To stimulate national industry in this point, it should be remembered, that our country contains in itself all the materials necessary for the carrying these valuable articles of its modern commerce to the utmost point of attainable perfection. Dr. Lister, in the *Philosophical Transactions*, has enumerated no less than two-and-twenty different kinds of clay, which he has arranged in order, and exhibited, in the form of a table * of clays, to the notice of that Society ; and it is well deserving the attention of the public, since, in all probability, most of these clays, if proper experiments were made, would be found serviceable to the potter, and the great use, elegance, and beauty, of our tobacco-pipe clay, are too well known to be here insisted on. If the Chinese, without any considerable advance in chemical knowledge, or correct idea of enamelling and painting, have been able to furnish Europe with such beautiful specimens of porcelain, what may not in time be accomplished by a nation so much their superior in all the

* See that table in *Philosop. Transact. Abridged*, vol. ii. p. 454.

branches of science that form the basis of that beautiful manufacture? Another instance of the patriotism of the East-India Directors ought by no means, in this place, to be omitted; that, principally for the sake of promoting the British manufacture, they have, for some time past, refrained from importing Oriental porcelain, the plenty and cheapness of which could not fail of operating towards the depression of that made in Britain.

Although the subterraneous regions of this island abound with mines of the richest copper, and of the best species of the *lapis calaminaris*, or calamine, from the cement of which mineral with the former, the factitious metal, which we call brass, is composed; yet, by some strange infatuation, neither were those mines wrought till within these two centuries, nor had we any brass besides what was imported from abroad, till long after that period. The art of making brass is said to have been long kept secret in Europe by the miners of Germany; but was indubitably known, as was before shewn, during the remotest periods, in Asia. Its having been used, during those early times, and in the infancy of the European empires, as money, is a proof of the
value

value and rarity of this metal in the west, and probably was one cause of its having been made by the Phœnicians a principal article of barter in their traffic with the old Britons. Before the intrinsic excellence of our own *calamine* was fully known, great quantities of Indian zinc, under the name of *tutenach*, were brought into this country by the ships of the Company; and it is remarkable, that it was imported after the very same manner as the tin of Cornwall is now exported to that country, as the ballast of those ships. This is judiciously restoring commerce to the simple original unperplexed mode after which it was carried on in the first ages of the world, viz. the exchange of commodities immediately drawn from the one country for such as are the immediate produce of the other; and perhaps the nearer trade can be brought back to that primitive rational plan, so much the more mutually advantageous will it turn out to the nations conducting it on these principles. Having taken this survey of the commodities imported by the Tyrian merchants into Britain, we return to our inquiry respecting the British exports, the first of which in order and importance was tin; but the farther consideration of that ancient staple we

we shall at present defer, to speak of the other two articles, mentioned by Strabo, lead and hides.

It has been before observed, that the ancients considered tin and lead as only two different states of the same metal, calling the former *plumbum album*, and the latter *plumbum nigrum*; but modern chemical experiments have incontrovertibly proved them to be two metals, radically distinct. The great use of the former, in various branches of trade and manufacture, have been already in part enumerated; those of the latter metal in the same line are still more important, and indeed the various preparations from lead must have been indispensable to a nation devoted, as one great tribe of the Indians always has been, to the most elegant designs in mechanic science: a tribe, the members of which are from their very birth, and from generation to generation, fully instructed in all the arts peculiarly tending to promote a flourishing and vigorous commerce, as well domestic as foreign. The beautiful varnish, the vivid painting, and curious gilding, displayed on their cabinet and other furniture; their elegant work in enamel, and the rich glaze on the porcelain of Asia, into all which those preparations must
of

of necessity largely enter, are proofs of this assertion.—To be more particular in regard to the uses to which lead is applied. From thin plates of this metal, exposed to the fumes of warm vinegar, is obtained the composition, called CERUSE, or white lead, which forms the basis of several kinds of paint. From lead, either in calcination or in fusion, are produced MASTICOT, or yellow ochre, MINIUM, or red-lead, LITHARGE, or glass of lead, so necessary in the various occupations of the painter, the plumber, the glazier, the dyer, the potter, &c. &c. that without it, half the business of the handicraft could not be carried on. With sheets of lead the tops of our houses are guarded against the injury of sun and weather; with lead, or its composition, *putty*, our windows are secured; lead, formed into pipes, carries away the sordes from our dwellings, and brings us water to purify them. Pewter, that bright factitious metal, once in such general repute through Europe, and now forming the domestic utensils of its less polished and affluent nations, is composed of tin, combined with a certain quantity of lead; the physician acknowledges its powerful though hazardous effect in medicine; the chemist well knows its indispensable

pensable utility in the fusion and refining of other metals; in short, next to tin, it is the ancient boast of our isle, and one of the best gifts of the Guardian Providence that watches over it.

The evidence afforded by Pliny concerning the great abundance of lead dug up in his time in Britain, has been already noticed, but the preceding member of the sentence, from which that evidence is taken, being of importance in this inquiry, as pointing out the other regions where it was found, the whole passage is here subjoined. *Laboriosius in Hispania erutum totasque per Gallias; sed in Britannia summo terræ corio adeo large, ut lex ultro dicatur, ne plus certo modo fiat.* This metal was with great difficulty and labour obtained from the mines of Spain and Gaul, but was produced in such plenty, and so near the surface in Britain, that an express law was necessary to prohibit its being dug and manufactured, except after a certain proportion fixed by that law.* The ancient treasures of this metal were not confined to Cornwall, but mines of it have been immemorially wrought in various and distant provinces of

* Plinij Nat. Hist. lib. xxxiv. cap. 17.

the kingdom, particularly in Lancashire, Somersetshire, and Denbighshire.

The last article of traffic between the old Britons and the Phœnicians, mentioned by Strabo, was the skins of beasts, which probably formed one of the oldest species of barter practised in the dawn of society and in the infancy of commerce. This species of exchange, indeed, is very reasonably presumed of a race existing in a state bordering upon savage, whose principal delight and whose constant employment consisted in hunting the innumerable animals that browsed on their mountains or roamed in their forests. They must also have had among them the art of preparing and preserving these skins, since we are informed, by ancient authors, that they covered with hides the wicker boats in which they sailed about the creeks and harbours of their indented coasts.

On the subject of these wicker vessels, it may be observed, that, fragile as they may appear, they were strong enough for a race who probably never ventured beyond the creeks and harbours of their native coast; and it is deserving of remark, that, according to Pietro D'Ella Valle, the very same kind of boats, formed of reeds, compacted together
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in the manner of hurdles,* and covered with the skins of animals, are at this day used, probably on account of their lightness, on a shore abounding with coral rocks, where heavier vessels might be in danger of being dashed in pieces, by some of the bordering nations who are accustomed to traffic along the coast of the Arabian Gulph. Travellers, also, who have visited the Icelandic Seas, affirm, that the vessels of that northern race are composed of long poles strongly bound round with leathern thongs, and covered with the skins of sea-dogs, sewed together with the sinews of that animal. No doubt the Cornish coast abounded with seals and other marine animals whose skins might be applied to a similar purpose by the Britons; or, if not, animals by land were by no means wanting who might afford them plentiful supplies of this kind, not only for domestic use but for exportation. The fertile island of Britain indeed seems ever to have nourished a numerous and vigorous breed of cattle, more than sufficient for the consumption of its own offspring. The ox, grown to a vast magnitude in her rich and extensive pastures, lent them his hide, an ample

*Travels, vol. i. p. 269.

shelter and defence from the violence of the waters and the weather. The skins of that animal, also, formed the covering of their reed-built huts, and of those large granaries of corn, *laid up in the ear*, for which, according to ancient authors, they were not less famous than their sons. Her breed of sheep, too, though neither so numerous nor so famous as those of modern æras, afforded the old Britons abundance of skins for exportation: flocks of goats, however, an animal equally valued by them for its milk and its flesh, were in ancient far more abundant and cherished than in modern Britain: and it is probable that both the wool of the former, and the hair of the latter, being afterwards properly prepared, received the impression of the beautiful dye of Tyre. To these may be added, the innumerable species of game of every kind, with which her vast forests were anciently stocked, the wild boar, of delicious flavour; the red and the fallow deer, of superior beauty and size; the wolf, the fox, and beaver, valuable for their fur; and the fleet hare, equally estimable for his flesh and his skin; that flesh, which, according to Cæsar, was forbidden to be tasted by the old Britons, but is happily not so by their progeny: these,

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with the various kinds of the feathered race, valuable for their flavour and fine down, so well calculated to gratify the pride and indolent luxury of the East, demonstrate the treasures of this kind possessed by those who made this species of commodity a principal object of foreign traffic.

I cannot conclude this head without another observation, which naturally arises from a part of the subject before discussed. When we read of these wicker boats, with their integuments of hides, of our ancestors, how is a modern Englishman tempted to smile at these first rude efforts of British mariners to navigate the ocean; who, timid, and creeping close to the shore, little dreamed of those stupendous structures, in the form of ninety and one hundred gun ships, in the womb of time to be launched on its surface by their dauntless posterity; much less that a numerous fleet of these, issuing from the spacious haven of Falmouth or Plymouth, would ever boldly sail to the distant latitudes of Phœnicia itself, and roll the thunder of Britain around the shores of that Asia to which their tin, their lead, and their skins, were exported.

In resuming our account of the Phœnician tin-trade, the first circumstance deserving

attention is the account given by Orosius, a learned Spanish writer of the fifth century, of an ancient Pharos of admirable workmanship, erected at Corunna, on the coast of Galicia, in Spain; which province, it has been before observed, lies directly opposite, in a south-west direction, to Cornwall.* This Pharos is by the same Spanish writer asserted to have been erected by Hercules, that is, the chief of the first Tyrian colony which traded to Britain, assuming the name of the founder of Tyre, and the appellation originally bestowed upon it was the usual one given to the monuments said to be erected by that hero, to perpetuate the memory of his progress and exploits. viz. COLUMNÆ, afterwards corrupted into *Corunna*. Orosius acquaints us, that this Pharos was there placed, *ad speculum Britanniae*, for the direction of ships bound thither from Britain; and it is surely a very remarkable circumstance, that the opposite land, consisting of a promontory, running about three miles into the sea, on the Cornish, or rather Devonshire, coast, is called Hertland, or Hertey-Point; that is, *Herculis Promontorium*, or, as it may be expressed in

* Vide Pauli Orosii adversus Paganos Hist. lib. i. p. 17.

maritime phrase, Cape Hercules. The name of this promontory, scarcely otherwise to be accounted for, has given birth to a reasonable conjecture, though not sanctioned by direct tradition, that on its extreme point was anciently erected a similar Pharos, or, at least, a beacon, to serve as a guide to the Phœnician and Spanish mariners exploring the dangerous coast of Britain. Add to this, that the Latin name of Cape Finisterre itself, or Promontorium Celticum, serves decisively to mark both the eastern race who first peopled Spain, and their progress to this western region of it.

When the merchants arrived in Britain, they seem to have resorted to some public emporium, where a mutual commerce for the articles wanted by each nation was commenced; but concerning such emporium and the ancient method of preparing and vending the tin, we have only the following obscure passage in Diodorus Siculus, which, however, seems to confirm the conjecture, that a considerable portion of ground, lying between the Land's End and the Scylla Isles, has either sunk or been submerged. "The men of Belerium," says that writer, "manufacture their tin with great ingenuity; for, though

the land is rocky, it has soft veins of earth running through it, in which the tinnern find the treasure, and which they extract, melt, and purify. Then shaping it, by moulds, into a kind of cubical figure, they carry it off to a certain island, lying near the British shore, which they call Ictis; for, at the recess of the tide, the space between the island and the main land being dry, the tinnern embrace that opportunity of carrying their tin in carts, as fast as possible, over to Ictis; for, it must be observed, that the islands, which lie between the Continent and Britain have this singularity, that, when the tide is full, they are real islands; but, when the sea retires, they are but so many peninsulas. From this island the merchants buy the tin of the natives, and export it into Gaul; and, finally, through Gaul, by a journey of about thirty days, they bring it down on horses to the mouth of the Eridanus."* By the Ictis here mentioned, it is impossible Diodorus could mean the Ictis, or Vectis, of the ancients, at present called the Isle of Wight; for, as Dr. Borlase properly observes, he is speaking of the western extremity of Cornwall, from which

* Diod. Sic. lib. iv. p. 301.

that island is distant near two hundred miles.* His own conjecture is both rational and just, when he adds, by Ictis, that historian must have meant some place near the coast of Cornwall, and Ictis must either have been a general name for any peninsula on a creek, *IK* being a common Cornish word denoting a cove, creek, or part of traffic, or else it must have been used to signify some particular peninsula or emporium on the same coast, which has now lost its *isthmus*, name and perhaps wholly disappeared, by means of some great alteration on the sea-shore of this country.†

This account of Diodorus, though not very elucidatory in respect to the commercial transactions of the Phœnicians in Britain, appears to me to open a new view of the subject, and makes us acquainted with another channel by which the tin of Britain was conveyed into the Mediterranean; for, by the mouths of the Eridanus, which is probably the mistake of some transcriber, since the sense of the context proves the Rhone to be the river intended, by that expression must be meant some city or emporium, situated in that latitude, not far from that point of the

* Natural History of Cornwall, p. 177.

† Ibid

coast at which the Rhone discharges itself into the Mediterranean; either Narbonne, the capital of that division of Gaul, called by the Romans Narbonensis, or the ancient but more remote commercial city of Messalia, now Marseilles, whence it might easily be forwarded, in Tyrian or Gaulic vessels, to the Phœnician territories. It is evident, therefore, that the Gallic merchants, at some period or other, largely participated in this lucrative trade, though I am inclined to think this account of Diodorus more applicable to the course of that commerce in his own, which was the Augustan, age, than the early times to which we allude, especially since Herodotus, who flourished 450 years before Christ, frankly confesses his ignorance of the exact situation of the Cassiterides, "whence," says that writer, "comes all our tin." In truth, the profound policy of the Phœnicians induced them to observe an inviolable secrecy in regard to the islands, the grand source of their wealth in the article of tin, lest other nations should become their rivals in this trade, and rend from them a portion of the enormous gains resulting from their monopoly of it. In proof of their jealous caution on this point, may be adduced the following relation

relation given by Strabo: the master of a Phœnician vessel, employed in this trade, thinking himself closely pursued by one of Rome, chose to run upon a shoal, and suffer shipwreck, rather than discover the prohibited tract, or disclose the least opening, by which another nation might be introduced to the knowledge of the Cassiterides; and, for the wise and intrepid spirit of patriotism, displayed by this conduct, he is said, on his return to Tyre, to have been loaded with wealth and honours by the magistrates of that city.*

Having now considered the two channels, by which, in those ancient times, this metal was exported to Asia, viz. in the Phœnician vessels, by the way of the Straits of Gades, direct to Tyre, and through Gaul, on horses to Narbonne or Marseilles, on the Mediterranean, where the merchants of that nation, resorting in person, or through the medium of their Gallic agents, might have established a mart for the public sale of this commodity; it remains for inquiry, whether there did not anciently exist another route for the transportation to India of this and other European commodities less tedious and hazardous than

* Strabonis Geograph. lib. iii. p. 109.

that by the way of the Arabian Gulph. In pursuing this inquiry, we meet with a striking and wonderful proof of the beneficial effect which an extensive and flourishing commerce has not only upon the nations of the earth themselves, but also on the very regions which they inhabit; for, in the bosom of the barren and mountainous desert of Syria, the active spirit of that commerce gave being to a city, which, in beauty and magnificence, once vied with the proudest capitals of the Oriental world; a city, whose celebrity and grandeur we learn, not only from the doubtful page of the historian and geographer of antiquity, but from the accurate modern details of our own countrymen, whose curiosity has explored, and whose pencils have delineated, the stupendous ruins. That city is Palmyra, or Tadmor in the wilderness, founded, as is conjectured, by Solomon, but certainly by some wise and politic prince, to be the grand magazine of the treasures equally flowing into this emporium from the eastern and the western world. The abundant palms which grow in this secluded spot, the plenty and purity of the water, that, gushing from numerous springs in the neighbourhood, clothed with verdure and fertility a region encircled with frightful rocks

rocks and scorching sands, had long made this scite the favourite station of the caravans, which immemorially traversed the desert of Syria, and supported by this route the connecting line of traffic carried on by land between the extremities of Asia. The industrious hand of commerce, *protected, not impeded, by imperial power*, led the pure waters bursting from those springs into vast reservoirs scooped from the marble quarry; built extensive granaries; reared the hospitable caravansera; fortified, and rendered impregnable, the barren rock; and while, in gratitude to God, it swelled the lofty temple to his honour, it repaid regal beneficence, by inshrining it in a superb palace, elevated on columns of porphyry, and internally decorated with a profusion of all those rich commodities, the gold, the silver, the silks, and the porcelain, which were the object of its powerful protection.

To this splendid mart, this phœnix among Eastern cities, from all the adjacent coasts of the Mediterranean, the productions of Spain and of Britain were transported, on the backs of camels, through the surrounding deserts, and from Palmyra to the banks of the Euphrates, little more than sixty miles distant. Here, the commodities intended for the Indian

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dian market were put on board vessels provided for the purpose ; and, by a less hazardous and circuitous navigation, conveyed down that noble river to the Persian Gulph and the mouths of the Indus. By the same channel were the gems, the spices, the perfumes, and the fine linen of India, together with the silks and porcelain of China, brought back into the heart of Assyria. One part of this immense imported wealth was absorbed in the vortex of the two great capitals of the Assyrian and Persian empires ; another part was, by inland caravans, pervading Asia in every direction, distributed among its more western provinces ; and the remainder found its way, by the desert of Syria, to the islands of the Mediterranean and the continent of Europe.

At length the great and opulent city of Tyre verged towards its decline ; and the adventurous band of merchant-kings, her sons, who, though confined themselves within so contracted and sterile a portion of the globe, had contrived to establish colonies in the most fertile regions of the earth, while their innumerable fleets covered the ocean ; this race, equally brave and industrious, after repeated and vigorous struggles to preserve their freedom and their commerce, which, being essentially

entially connected, generally flourish and fall together, were compelled to bow the neck first beneath the yoke of the haughty Assyrian monarch, Nebuchadnezzar, who, in reducing them, exhausted the strength of Babylon, and afterwards of the victorious chief of Macedon. The latter of these invaders, irritated by the spirited opposition which he met with, and the accumulated disasters experienced by his army during a seven months siege, and at the same time ardently desirous of turning the whole current of the Phœnician commerce into a Grecian channel, inflicted a more sanguinary vengeance on this brave people than became a generous conqueror; for, having taken the city by storm, he inhumanly massacred ten thousand Tyrians in cold blood, and, after burning that noble metropolis to the ground, sent the rest of the wretched inhabitants, about thirty thousand in number, into slavery;* a fate, as unmerited on their part, as it was disgraceful in him to inflict it. In their descendants, the Carthaginians, however, the flame of liberty broke forth with undiminished ardour; and among them the spirit of enterprize not only soared with as

* Arrian, lib. ii. p. 49.

bold a wing, but accomplished deeds as worthy to be admired and recorded. To that nation our attention must now be necessarily directed in this retrospect on the revolutions of ancient commerce, and the vicissitudes of Eastern empire.

Carthage, the eldest born of Tyre, as Tyre itself was of Sidon, is asserted by Bochart* to have been originally called Carthada, and to have derived its name from Charta, an Oriental word signifying, by way of eminence, THE CITY. The exact æra of its foundation is so remote in time as to have baffled all the researches of the antiquary, and its early history is too much blended with fable to merit particular notice. In digging for the foundation of the city, the Phœnician settlers found the head of a horse, which was considered as an auspicious omen; and from that event the animal in question became the prevailing symbol on their coins, as well as served to mark the warlike genius of the nation. Some of the numerous coins, stamped with that symbol, anciently found in Britain, may, therefore, possibly have been left here by the Carthaginian merchants, who, devoted to the ma-

* Bocharti Canaan, de Col. Phœn. lib. i. cap. 24.

ritime pursuits of their ancestors, and permitted to partake of their commerce, are known early to have visited the Phœnician settlements in Europe. Carthage, situated upon an extensive peninsula of the African continent, and in about thirty-six degrees of northern latitude, was well calculated to be, what it was first intended for, the emporium of the vast commerce carried on with the internal provinces of Africa for gold, both in solid masses and in dust for ivory, Æthiopian gems, and many other costly articles of traffic, in which that continent abounded. But gradually extending its views and its dominions, that city, in time, united to the African trade that of Asia and Europe, and not less in the magnitude of its marine, as well those vessels intended for military as those appointed for commercial service, than in the splendor of its achievements by land, far surpassed the renown of its parent. In fact, its views of commerce were only bounded by the limits of the world, while its dominions, in Africa alone, at the breaking out of the third Punic war, according to Strabo,* extended over three hundred cities, stretching eastward to Cyrenaica, and westward quite to the Pillars

* Strabonis Geograph. lib. xvii. p. 793.

of Hercules. This great extent of territory gave them a decided advantage over their Phœnician progenitors, since their own ample domains afforded them most of the productions which they sent in exchange for the commodities of other countries. These were principally grain, in which Africa was always rich, and fruits of various kinds; honey, palm-wine, olive-oil, and the valuable skins of the savages that roam the deserts of Afric: add to these, that particular species of commodity which might be called the staple manufacture both of Tyre and Carthage, consisting of cables, anchors, and all sorts of naval stores, together with the colour called *Φοινικον*, or *Punic*, peculiar to themselves and the country from which they migrated.

Although it is impossible, as was before observed, to fix the precise æra in which Carthage was founded, by a band of emigrated Phœnicians, with Dido, the injured sister of Pygmalion, one of the most celebrated monarchs of Tyre, at their head, yet we know that event must have taken place at a very early period of the parent-empire, since Herodotus* records a celebrated naval engage-

* Herodoti Hist. lib. i. p. 77.

ment, as having happened between the Carthaginians and the Phocæans, in the reign of Cyrus, about five hundred years before Christ; and farther from the same writer we learn, that, in the time of Cambyses, his son and successor, they must have had a considerable marine, since that monarch, in a meditated expedition against Carthage, considering the whole naval power of Persia as too weak to contend with that of the former state, solicited the aid of the Phœnicians against them, which that nation generously declined, urging in excuse, that they were their descendants.* The Carthaginians were not ungrateful; for, of the produce of their soil, and of the spoils taken in battle, Polybius informs us, a tenth was, in the infancy of that republic, constantly transmitted to the parent-state as offerings to be deposited in the shrine of the Tyrian Hercules, alike the guardian-deity of either city.† Another proof of their early migration arises from the very circumstance, which was the occasion of first introducing them to a knowledge of the coast beyond the Straits of Gades, which, being of importance in this historical detail, shall now be suc-

* Herodotus, lib. iii. p. 191.

† Polybii Hist. p. 341.

cinctly related from the two authors, who have dwelt more particularly on their affairs, Justin and Diodorus Siculus.

The former expressly asserts that circumstance to be the violent opposition which the Spaniards gave to the Phœnicians, when erecting the city of Gades; so violent, that they were compelled to call in the assistance of the rising colony of Carthage, who, sending thither a numerous fleet and army, not only effectually seconded their operations, but also secured for themselves a considerable territory of the rich adjoining province of Bætica.* According to a passage which occurs in Sir Isaac Newton, who has entered into extensive chronological discussions relative to these two nations, it should seem that the temple at Gades must have been erected long antecedent to that city; for the gift of Pygmalion, which he mentions, must have been conferred many ages before the Carthaginians could have been in a situation to afford any such powerful succours to the Tyrians, as described by Justin. Possibly a temple sacred to the manes of that conductor, who assumed the name of Hercules, and a few buildings on

* Justin, lib. xlv. p. 574.

the shore, for the purpose of mutual traffic and shelter from the weather, might have formed the whole of the settlement; but when, in process of time, those foreigners began to erect spacious buildings, and fortify the island, the jealousy, not less than the avarice, of the Spaniards, might be awakened, and the assault as powerful as the motives that produced it. The passage alluded to in Newton is as follows: "The Phœnicians," says that writer, "after the death of Melcartus, built a temple to him in the island Gades, and adorned it with the sculptures of the labours of Hercules, and of his hydra, and the horses, to whom he threw Diomedes, king of the Bistones, in Thrace, to be devoured. In this temple was the golden belt of Teucer, and the golden olive of Pygmalion, bearing smaragdine fruit; and, by these consecrated gifts of Teucer and Pygmalion, you may know that it was built in their days."* The account of this splendid gift of Pygmalion is in Philostratus, and exhibits a curious proof of the early skill of the Phœnicians in working in metals and gems. Pygmalion sent to the temple of Hercules, standing in the island of Gades, a rich do-

* Sir Isaac Newton's Chronology, p. 37.

native, being the figure of an olive-tree, of massive gold, and of most exquisite and curious workmanship; its berries, which were of emerald, bearing a wonderful resemblance to the fruit of that tree.*

The Carthaginians, having once penetrated into Spain, found it too important an acquisition to be relinquished, and therefore followed up the victory they had gained, to the complete subjection of the maritime provinces on either side of the Straits. In the course of no very extended period, they erected, in a part of the province of *Tarraconensis*, now *Valentia*, on the Mediterranean coast, and on a peninsula jutting far out into the ocean, like that on which old Carthage itself stood, a most noble city, with a spacious port, long the emporium of their wealth in this quarter, which they denominated *New Carthage*; on the ruins of which stands the modern town of *Carthagenæ*. In addition to these valuable conquests by land, their active fleets scoured the ocean in the same line, and obtained possession of all the adjacent islands, on which they built forts and established factories; particularly of those celebrated islands lying

* Philostrat. in *Vita Apollonii*, lib. v. c. 1.

nearly opposite the coast of Valentia, in the Mediterranean-Sea, called, by the ancients, *Baleares*; but, by the moderns, from their comparative magnitude, Majorca and Minorca, the *greater* and the *less*. Their continental possessions produced immense quantities of those precious metals, in which their commerce principally consisted, as well as supplied their army with brave and able recruits for fresh conquests: the islands yielded abundance of honey, corn, and wine, and afforded convenient harbours for the numerous Carthaginian ships which navigated that sea.

The Carthaginians being of the same race, manners, and religion, as the Phœnicians, there are no particular data by which we can ascertain the time of their first trading to the British coast for the commodity in such great request among the traders of the East; we only know from Festus Avienus, an author cited by Bochart, that Himilco, a Carthaginian general, the first of that name, was sent, about the time of Darius Nothus, by the senate of Carthage, to discover the western shores and ports of Europe; that he successfully accomplished that voyage, of which he wrote a journal, which was inserted in the Punic annals, and which the said Festus

Avienus had seen; and that, in that journal, the Britannic islands are mentioned by the name of *Æstrymnides* ;* islands infested by the *æstrum*, or gad-fly. At the same time that Himilco was sent westward, another general, of the name of Hanno, of which, probably, there were several, since we meet with one of considerable note at a much later period,) was sent to explore the southern coast of Africa; but he, after making some important discoveries, was compelled to return, from the failure of his provisions. He also wrote an account of his voyage, and a tract, bearing the name of the *Periplus of Hanno*, is yet extant, though of dubious authority. The circumstance of provisions failing him, during this intended circumnavigation of Africa, forms, in my opinion, a very strong objection against the possibility of the voyage round the African coast, said to have been undertaken and accomplished near 600 years before Christ, at the command of Pharaoh Necho, king of Egypt, since the ships used by the Phœnicians were not of magnitude sufficient to hold the quantity of provisions necessary for the support of a ship's crew during a three-

• Bocharti Canaan, lib. i. cap. 35, 39.

years voyage ; for, in that period, according to Herodotus, it was accomplished.*

The genius of Carthage being more martial than that of Tyre, whose object was rather commerce than conquest, it is not improbable that the former might, by force of arms, have established a settlement in the Cassiterides, and by this means have secured that monopoly of tin, which the Phœnicians and their colonies indubitably enjoyed for several centuries ; since, according to the united judgment of the two ablest writers on the Asiatic Antiquities of Britain, Bochart and Camden, the Greeks were not heard of in Britain much above a century and a half before the Christian æra. At all events, it is rational to suppose they appointed Phœnician or Spanish agents to superintend the working of the mines, and secure their produce from the intrusion of strangers. In confirmation of this, a passage in Tacitus may be adduced, in which, describing the Britons as they appeared in his time, he affirms, that the *Silures*, inhabitants of South Britain, or probably of the *Scilly Isles*, were of a swarthy complexion, and had curled hair, like the Spaniards.†

* Herodot. Hist. lib. iv. p. 240.

† Tacitus in Vita Agricolaë, cap. iv.

Norden, also, in his *Antiquities of Cornwall*, mentions it as a tradition universally received by the inhabitants, that their tin-mines were formerly wrought by the *Jews*. He adds, that these old works are there at this day, called Attal Sarasin; *the ancient cast-off works of the Saracens*, in which their tools are frequently found. Miners are not accustomed to be very accurate in distinguishing traders of foreign nations, and these Jews and Saracens have probably a reference to the old merchants from Spain and Africa; and those employed by them might possibly have been Jews, escaped the horrors of captivity and the desolation which, about that period, befel their country. While I write this, however, I am not ignorant of the general application of this tradition to a later period in the British history, when the mines and their produce were actually farmed out by King John to the Jews, by whom the commerce of this country with Spain and the East was, at that time, principally carried on. It being certain, however, that the Carthaginians traded hither, and so continued to do, for ages, after the destruction of Tyre, let us quit them for a moment, and attend to the new route to India, opened by the bold, but prudent, policy of

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the Ptolemies, the successors of the great Alexander in the empire of Egypt.

The expedition of Alexander to India, which, if enabled to proceed in the History of Hindostan upon the extensive scale in which I have engaged in it, it will be my province hereafter to relate in more ample detail than it has yet been done, was an event, as to its consequence upon the commerce and nations of Europe, of far more importance than is generally conceived. Without the knowledge of the internal state of the Panjab, obtained by means of that invasion, and, in particular, by the descent down the Indus; without the incentive of such wealth and power, acquired by so large an addition of territory in the eastern quarter of Asia, by the Greeks, a people situated on its western limits, as was the result of the conquests of Alexander in Persia and India, the nations, inhabiting the shores of the Mediterranean and the Arabian Gulph, would, in all probability, have still been the factors to Europe for the rich productions of the Indian continent. That wealth, a large portion of which centred in the Ptolemies, enabled them to execute the daring projects of their master, whose mind, fired with the hopes of monopolizing its wealth, formed the judicious

cious plan of enlarging and deepening the port of Patala, at the mouth of the Indus, with intent to make it the emporium of a future commerce with Alexandria; while that power secured to their efforts final success and lasting protection. The Greeks, at first reluctant, like the old Egyptians, to engage in distant excursions by sea, or, at least, advancing by very slow degrees to improvement in the science of navigation, now began to expand more boldly the sail of commerce, to court the winds, and quit the shore. Their frequent and severe engagements with the fleets of Carthage and Rome failed not to extend their naval skill; and the treasures which the new theatre of India displayed drew thither in multitudes the Athenian vessels. Having conquered their Grecian rivals, the Romans eagerly engaged in the same line of commerce, and the decline of that empire opened the way to India for the Venetians and other European states, and thus set in motion that active and restless spirit of adventure and research, which explored, and finally accomplished, the passage by the Cape.

When, in the hope of monopolizing the trade of Tyre, and securing as an asylum for the rising fleets of Greece its too deep and spacious

spacious bays stretching out on each side of the peninsula, the one looking towards its parent Sidon, the other towards the great mart, Egypt, and serving as a summer and winter harbour for its vast marine, the politic Alexander demolished that ancient city, and inflicted so exemplary a vengeance on its inhabitants, it was his intent only to annihilate it as a Tyrian colony; and, before he left the coast, he rebuilt and repeopled it, assuming the flattering title of the *founder of a new Tyre*. Of the new inhabitants, many were Grecian adventurers, and many were collected from the maritime provinces in its neighbourhood, which had viewed its prosperity with a jealous and malignant eye. Still, however, there remained a large portion of the natives, who had, during the siege, transported themselves in ships to Sidon and Carthage, and these, shortly after returning, endeavoured to revive its ancient splendour. Though these efforts were ineffectual in all the extent desired, much of its commerce and its consequence was recovered; for, scarcely twenty years afterwards, Tyre was again become so considerable a city as to resist, for many months, the besieging army of Antigonus, one of the generals, among whom the dominions

dominions of Alexander were, at his death, partitioned out, engaged in war with Ptolemy, in whose hands it then was, and consequently in a state of dependance on the Greek sovereigns of Alexandria, as it ever after continued. No longer, therefore, could either the Tyrians, or their descendants, the Carthaginians, command the port of Rhinocolura for the transportation of the commodities of the western world to India, because both that port and the passage of the adjoining isthmus were necessarily under the control of the monarch who commanded Egypt and the western districts of the Arabian Gulph.

Alarmed, therefore, at the blow aimed at their very existence by the destruction of Tyre, and at the evident, though not yet declared, intention, of the Macedonian chief to deprive them of their monopoly of the Indian trade, and make it flow in a new channel, the Carthaginians dispatched to that prince, in Egypt, a man, named Hamilcar, of great address and of a penetrating genius, to cultivate his goodwill, and to obtain every information in his power concerning this project, and the possibility of carrying it effectually into execution. Hamilcar found the king busied in the vigorous

gorous prosecution of his great design ; the port of Alexandria already cleansed, enlarged, and defended by a wall, and the city itself ; which was intended to render Carthage a desert, on every side rising in beauty and grandeur. The report of the great works carrying on at this future metropolis of Egypt filled the Carthaginians with dismay ; and at the same time so incensed them, that, convinced as they were of the entire practicability of concentrating at Alexandria the whole commerce of the eastern and western world, in a transport of rage, they put to death the innocent bearer of this unwelcome intelligence.* No other channel, therefore, for the conveyance of articles of commerce from the western to the eastern world remained to the Carthaginians, besides that before pointed out, through Tadmor and the deserts, to the Euphrates and the Persian Gulph ; and, from the convulsed state in which, owing to incessant wars, the Assyrian and Persian empires continued for nearly half a century afterwards, even that channel must have been a very precarious and hazardous one. Patient, however, and persevering as the camel that bears

* Justini Hist. lib. xxi. p. 406, edit. variorum.

her commodities over the burning sands, COMMERCE undauntedly urges her way through opposing difficulties, climbs the steep rock, stems the rapid torrent, nor relaxes its laborious efforts till it gains the dazzling prize, which crowns its labours and rewards its sufferings.

Although the death of Alexander prevented his own accomplishment of the plan which he had formed for making Alexandria the emporium of the trade of the world, Ptolemy Soter, his friend and successor in the kingdom of Egypt, sedulously and incessantly laboured, during a long reign of thirty-nine years, to complete the magnificent project of his master. This first and greatest of that learned and princely line decorated the noble harbour of Alexandria with a marble lighthouse, so grand and beautiful as to be once esteemed the wonder of the world ; and he joined to it the island Pharos, on which it stood, by a stupendous mole, or causeway, carried, for three quarters of a mile, through the sea. He also erected in it, for the encouragement of science and the accommodation of the learned, a superb structure, which was called the Museum, or Academy, and a library, not less valuable for the beauty of the
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architecture than for the rarity and number of the volumes it contained, which amounted to 400,000, unfortunately burnt about three centuries after; as was the still greater one begun by Ptolemy Philadelphus, his son, at a more recent period, by the ferocious mandate of the barbarian Omar. The temple of Serapis, the royal palace, the lofty walls flanked with bastions of durable granite, the great canal by which the waters of the Nile were conveyed to the city, and the marble columns that sustained the vaults, (at this day to be seen,) on which the whole city was built, long made Alexandria alike the thronged resort of the merchant and the scholar; and justly entitled it to the distinguished appellations of Queen of the East, and the Metropolis of the World.

Ptolemy Soter died at the advanced age of eighty-four, and was succeeded by a son not less ardently desirous to fulfil the intentions of his wise father, than to perfect the extensive plans of the ambitious Alexander. The perpetual conflicts, by land, in which that father was engaged with the other competitors for the divided empire of their master, during the early part of his reign, had prevented his giving all that attention to his marine, though
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that marine was far from contemptible, which appeared necessary to support the pretensions of a power aspiring to give law on the ocean, and make the commerce of distant nations subservient to its own aggrandizement. Alexander had foreseen that this could never be effected while Tyre and Carthage were permitted to retain such a numerous fleet in the Mediterranean; and, therefore, after ruining the Phœnicians of Tyre, he had formed designs for the speedy destruction of those of Carthage also. Among his papers were found memoranda of certain grand projects, which, if he had lived, it was his intention to have executed; and, first of these, as the basis of his future scheme of greatness, was recorded his resolution to build a thousand stout gallies, to reduce the Carthaginians and other maritime nations, who might be inclined to oppose the progress of his arms in an intended conquest of all the sea-coasts of Africa and Spain, lying on the Mediterranean; along the whole line of which the next memorandum stated his intention to carry a broad and regular high road, as far as Ceuta and Tangier, for the convenience of commerce, and more easy communication between his land and sea forces;

forces ; while a third proposed the erecting of forts, establishing arsenals, and forming havens, docks, and yards for building and repairing ships, at proper distances, throughout his dominions. This scheme, carried into execution, must have annihilated the power of Carthage ; and the whole project serves decisively to mark the judicious policy and comprehensive grasp of the mind that formed it.

To bring to a conclusion these extended strictures on the trade maintained with Britain on the one hand, and India on the other, by the Carthaginians, we have only to subjoin, that, after bravely struggling for nearly three hundred years to preserve their liberty and their commerce against the incroachments of the Romans, their empire was entirely subdued, and at length, in the year before Christ 146,* its stately and beautiful metropolis was, by the renowned Scipio Æmilianus, burned to ashes. But before the Romans could engross to themselves any considerable portion of the valuable trade carried on through Egypt to India, another power, which, under the protecting wing of the Pto-

* Appian in Punicis, p. 85.

lemies, had risen to an uncommon height of maritime glory was likewise to be subdued, and this was the republic of Athens, whose fleets now swarmed in the Indian seas, and wafted into the ports of the distant Euxine the rich commodities of the Ganges.

THE FLOURISHING COMMERCE OF INDIA,
IN THE REMOTEST PERIODS, PROVED
FROM THE INSTITUTES OF MENU.

PREVIOUSLY, however, to our taking a survey of the naval concerns of the Greeks with Hindostan and Britain, we ought to consider in a more particular manner than we already have, the progress made by the Indians themselves in navigation, whom the number and magnitude of their rivers, added to their vast inland commerce, must have made very early expert in that science. The best guide we can take with us during this retrospect upon the ancient commercial transactions of India, as well on the continent as by sea, is the book so often mentioned before, the Institutes of Menu, the date of which, in an introductory discourse, Sir William Jones has fixed, by astronomical observations, to about the twelfth century before Christ, and
in

in that book we find numerous rules laid down, and cases adjudged, that probably refer to many centuries preceding even that remote period. The two following stanzas of chapter the eighth, ON JUDICATURE, AND THE DUTY OF KINGS, will demonstrate in how important a light the great legislator of India considered the commerce of that empire and how minute and unwearied ought to be the attention paid to it by its sovereign. The translation, it should be remembered, is, throughout, strictly and scrupulously verbal, so that the reader cannot fail of being in possession of the genuine meaning of Menu; and it may be added, that never before did any editor contrive to give to a verbal translation not only such perspicuity but such unexampled elegance.

“ With vigilant care should the king exert himself in compelling *merchants* and *mechanics* to perform their respective duties, for, when such men swerve from their duty, they throw the world (that is, a great commercial empire) into confusion.” Institutes, p. 243.

“ Day by day must the king, though engaged in forensic business, consider the great object of public measures, and inquire into the state of his carriages, elephants, horses, and

cars, his constant revenues and necessary expenses, *his mines of precious metals, or gems*, (a proof that the Indian sovereign had such mines,) and his treasury." Ibid.

In truth, the Indian sovereigns had no small stimulus to attend to their duty in thus inspecting commercial concerns; for their profits are said, in another place, to have been a *twentieth* part of the profit of every thing sold. The toll-gates, for the passage internally of caravans of merchandize, seem to have been numerous in those early times and the duty collected with the utmost strictness; for, by the 400th article of that chapter of the code, it is enacted, that

“ Any buyer or seller, who fraudulently passes by the toll-office at night, or any other improper time, or who makes a false enumeration of the articles bought, shall be fined *eight times as much as their value*.” P. 240.

“ Let the king establish rules for the sale and purchase of all marketable things, having duly considered whence they come, IF IMPORTED; and, IF EXPORTED, whither they must be sent; how long they have been kept; what may be gained by them; and what has been expended on them.” Ibid.

“ Once

“ Once in five nights, or, at least, every fortnight, according to the nature of the commodities, (that is, whether they will keep or not,) let the king make a regulation for market-prices in the presence of experienced men:” and this seems to have been the general practice of Eastern sovereigns, for Pliny tells us, that, at Ocelis, on the coast of Arabia, the great mart, whither the Indian and Egyptian fleets annually sailed to barter the commodities peculiar to their country for the myrrh and frankincense of Arabia; the king of that country also fixed the price of all the articles sold at that emporium, whether imported or exported; and he mentions, in proof of this assertion, that, in consequence of the high duties imposed on cinnamon at that port, that precious commodity rose to such a high price at Rome, that a pound of it sold for one thousand sesterces, or about eight pounds sterling.*

“ Let all *weights* and *measures* be well ascertained by him; and, once in six months, let him re-examine them.” P. 241.

These passages afford irrefragable evidence of the very rigid attention anciently paid to

* Plinii Nat. Hist. lib. xii. cap. 19. THE

the trading concerns of India, and the tract itself, being of such high antiquity, must prove very interesting to the commercial reader. The toll-prices at the different ferries on the Indian rivers are then stated with equally minute precision.

“The toll at a ferry is one pana, for an empty cart; half a pana, for a man with a load; a quarter, for a beast used in agriculture, or for a woman; and an eighth for an unloaded man.” Ibid.

“Waggons, filled with goods packed up, shall pay toll in proportion to their value; but for empty vessels and bags, and for poor men ill-apparelled, a very small toll shall be demanded.” Ibid.

In the following article respecting *freightage*, there is a most remarkable passage, which greatly arrested the attention of the translator, since it decidedly proves that 1200, if not 1500, years before Christ, the Indians, not less than the Phœnicians, navigated the vast ocean. It is as follows:

“For a long passage, the freight must be proportioned to places and time; but this must be understood of passages up and down rivers: AT SEA THERE CAN BE NO SETTLED FREIGHT.” Ibid.

“Whatever

“ Whatever shall be broken in a boat, by the fault of the boatmen shall be made good by those men collectively, each paying his portion.” Ibid.

“ This rule, ordained for such as pass rivers in boats, relates to the culpable neglect of boatmen on the water ; in the case of inevitable accident, there can be no damages recovered.” Ibid.

It is not, however, only the freightage necessary to be paid for carriage of goods by sea that is thus particularized, for, in another place we find a law relating to the interest which the merchant was, by mutual agreement, bound to pay for the commodity exported.

“ Whatever interest or price of the risk, shall be settled between the parties by men WELL ACQUAINTED WITH SEA-VOYAGES, or journies by land, with times and with places, such interest shall have legal force.” P. 210.

If the reader should be anxious to know what were the articles bartered in this traffic, I answer whatsoever a great, flourishing, and established, empire could produce, and many which it did not produce ; as gold, silver, lead, copper, and TIN ; articles of commerce which
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they seem to have possessed immemorially, and in great abundance, when the rest of the world was but very scantily supplied with them. As to precious gems, diamonds, rubies, and pearls, they were the native growth of their own rich country; the first came from the mines of Soumelpore, on the Adamas river; the second from those of Pegu; the third from the celebrated fisheries on the shores of the Peninsula and Ceylone. The same luxuriant and fertile soil also produced to the Indians sandal, cinnamon, saffron, and all the other rich and odoriferous woods that grow in the fragrant forests and gardens of Asia, though not in the unbounded plenty in which they required them for various uses, sacred and civil; for the magnificent temple, and the splendid palace.

Many of these latter, therefore, were constantly imported from Arabia to cherish the never-dying fires that blazed on the altars of their deities; for only the most costly aromatics, inflamed by a profusion of rich gums and clarified butter, are there allotted to feed the sacrificial flame. Medicinal drugs, also, of the most powerful efficacy, and perfumes of the rarest kind, were the spontaneous gift of their prolific soil. In cassia, bezoar, benzoin,

zoin, storax, gum-lac, they immemorially drove a flourishing trade; and the aloes, the musk, the spikenard, the civet, and the camphire, of India, are still unrivalled. The commerce for the former was principally carried on through the Northern soobah of Cabul, a region ever famous for its aromas and the rich botanical stores of every species which its delicious climate produces, and in which, independent of its general commerce, it maintained an extensive provincial traffic with Persia: the latter were, in general, the productions of the warm southern provinces and the Peninsula, whence they were as abundantly exported to the West.

If, turning over the pages of the same volume, we examine the mechanical arts and infinite manufactures of this ancient nation, we find them engraving on the hardest stones, and working in the most difficult metals; giving the most beautiful polish to the diamond, an art supposed not to be known till the 15th century; inchasing in gold, and working in ivory and ebony, with inimitable elegance. In weaving, spinning, and dying; in all the more ingenious devices appertaining to the respective occupations of the joiner, the cutler, the mason, the potter, and the janner ;

panner; in executing the most curious cabinet and filligree work; in drawing birds, flowers, and fruits, from the book of nature with exquisite precision; in painting those beautiful chintzes annually brought into Europe, that glow with such a rich variety of colours, as brilliant as they are lasting; in the fabrication of those ornamental vases of agate and chrystal, inlaid with the richest gems, that constitute so large a portion of the splendid merchandize of India with the neighbouring empires of Asia; in short, in whatever requires an ingenious head or a ductile hand, what people on earth, in those remote or in these modern times, has ever vied with the Indians?

What polished nation is not, or has not been, indebted to the loom of India, and the labours of the Indian mechanic, for the choicest rarities of household-furniture, and apparel of the finest and most splendid texture?—Her rich callicoes, plain or flowered, applied to a thousand domestic and personal uses both in Europe and Asia;—her gold and silver brocades;*—and her carpets and tapestry

* Although the use of East-India *wrought silk* is now prohibited, for the wise purpose of encouraging our own manufactures in that line, yet how

pestry ever superior to all others, if not in the design, at least in the dazzling lustre of the colours, are abundant proofs of these assertions. Who has not heard of the shawls of Cashmere, of the fine veils, sumptuous vests, and gaudy sashes, made in India, and of the exquisite fineness of their muslins, especially of those curious robes, of this delicate manufacture, appropriated to the use of the sultanas of the court of Delhi, while Delhi had a court; woven with such elegance, that the whole dress might be drawn through a small ring, and, when spread on the grass, on account of the minuteness of the threads, were scarcely visible to the eye? To what European nation has not the loud thunder of the British navy proclaimed the excellence of the saltpetre of Bengal; and what Asiatic army has not had its fury in battle increased by the inspiring fumes of its opium, not exceeded by the best produced in Egypt? How would the table of luxury have been spread, not only in our times, but in those of Greece and Rome,

how great and general was the consumption, previous to that prohibition, of this commodity, may be learned from what is recorded in Postlethwaite on this article, relative to the cargo of the *Tavistock*, which brought 9000 pieces of damask only, independent of other sorts of wrought silk, each of which being worth at market £9 or more, the damask only amounted to near £90,000.

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had it not been for the aid which culinary skill has received from the pepper, the nutmegs, the cloves, the ginger, the mace, the cinnamon, of the tropical regions of India? Add to this, their rich sweetmeats and preserves of all kinds, their fruits dried or green, the anana, the mango, and many others, of such exquisite flavour and poignancy, that the appetite ranges among their endless variety without danger of being satiated or disgusted.

In respect to the various articles of which their thriving domestic commerce principally consisted, they, in a particular manner marked the native ingenuity and taste of a people, one order of whom are entirely devoted, from their infancy, to mechanical employ and manual labour, and those articles were, at once, elegant in fabrication and infinite in number. Among these may be reckoned curious baskets made of those flexible reeds, with which the banks of their rivers and marshy grounds abound in wonderful variety; various species of beautiful pottery of the more elegant kind, and some even scented; an infinite assortment of costly toys, fabricated of ivory, and what we call mother-of-pearl; light screens richly gilded, and painted with the most vivid colours; fans and umbrellas
formed

formed of the beautiful feathers of the numerous tropical birds that flutter in their forests and carol in their groves; musical instruments adapted to every species of melody, martial or festive, solemn or plaintive, from the dreadful resonance of the tom-tom to the sprightly air of the vena and tambour: in these, and a thousand other minuter articles, which it would be tedious to enumerate in this place, the Indians, in periods to which European chronology scarcely ascends, carried on, and still maintain, an extensive and vigorous traffic.

But lest I should be thought to have exaggerated matters in this account of the varied and extensive trade of ancient India, I shall now descend to some particular statements and extracts from the volume, cited before, which will fully prove the truth of the preceding assertions. I shall also, for the convenience of the reader, continue to be precisely accurate in referring to the pages which I cite, and shall begin with mentioning two or three articles on which I shall have occasion to discourse more at large hereafter, when discussing certain parts of the trade of India with Britain in modern periods. The first of these is

SUGAR.

SUGAR.

THAT the ancient Indians, at this remote æra, were accustomed not only to extract sugar from the cane, which anciently grew and still grows in luxuriant abundance in their country, and was, probably, thence transported into our West-India settlements; but also knew how to draw from the melasses an ardent spirit, like the liquor which we call RUM, is evident from the following passage in these Institutes, page 320, where it is said, “ Incubriating liquor may be considered as of three principal sorts; that extracted from DREGS OF SUGAR, that extracted from bruised rice, and that extracted from the flowers of the Madhuca; as one, so are all; they shall not be tasted by the chief of the twice-born;” that is, the Brahmin, who, according to the received notion of præ-existence in India, is supposed to be a second time born, when he enters on his earthly career.

In this passage we find the exact parallel, or, perhaps, the origin, of that ancient precept of the Egyptian code, that the priest should refrain from tasting wine and spirituous liquors; and the reason afterwards assigned for

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for this strict prohibition, at least in India, is, lest, when in a state of intoxication, he should pronounce some secret phrase of the mysterious Veda. The next are

INDIGO AND DYED COTTONS.

THAT the merchants of India, also, in that early period, drove a traffic in indigo is certain, since, in the same book, when Menu is enumerating the species of commodity in which it is lawful for a distressed Brahmin to deal, indigo is one, among many others, forbidden him ; and indeed from that very passage we may collect many other articles then forming a part of the domestic and foreign trade of India.

Among the various kinds of merchandize also there enumerated, but prohibited the Brahmin to trade in, if distress should drive him to derive his sustenance from commerce, are different species of cloth, made of wool, or of the bark of trees, dyed of a *red colour*, and these are repeatedly specified in so particular a manner, that we have the strongest reason to conclude they had obtained from the Phœnicians some information concerning
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the rich dye for which Tyre was celebrated throughout the Oriental world, and which, in fact, consisted of a *deep dark RED*. The passage in question particularly specifies

“ All woven cloth, DYED RED, cloth made of Sana, of Cshuma bark, and of wool, EVEN THOUGH NOT DYED RED,” as prohibited the mercantile Brahmin.

In reality, this is by no means the only evident remain of the connection anciently subsisting between the Tyrians and Indians that may be discovered in the history and commerce of the two nations. The immemorial custom established in India, of women sacrificing themselves to the manes of their deceased husbands, may be discovered in the conduct of Dido, wife of Pygmalion, king of Tyre, who, rather than devote herself to the embraces of a second husband, publicly ascended the funeral pile.

Besides the above-mentioned articles, forbidden the Brahmin, it was unlawful for him to deal in “ gems, salt, cattle, human slaves,” (that ancient but disgraceful traffic !) “ medicinal drugs,” and, among others, the baneful classes of poisonous herbs ; (for the old Indians seem to have been well skilled in poisons ;) he was forbidden to sell “ iron, honey, wax,

wax, perfumes, SUGAR, NILI, OR INDIGO, and lac." P. 300.

PRECIOUS STONES, PEARLS, METALS, IVORY, &c. &c.

THE above list of prohibited articles from so authentic a source is extremely important in an investigation concerning the commerce of a country in such very remote æras. But in another passage, on the purification of articles used at that time in diet and in dress, we are still farther introduced to a knowledge of their great advance in arts and manufactures ; for, as to their sciences, they will become an article of separate consideration hereafter, while the curious enumeration of their superstitious customs, as to clothing and diet, will not fail to excite wonder and gratify curiosity. With respect to utensils used in diet, it is observed,

“ Of brilliant metals, of gems, and of every thing made with stone, (as pots or vases,) the purification ordained by the wise is with ashes, water, and earth.” P. 137.

“ A golden vessel, not smeared, is cleansed with water only ; and every thing produced
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in water, as coral-shells or pearls, and every stony substance, and a silver vessel, not en-
chased." Ibid.

"From a junction of water and fire arose gold and silver; and they two, therefore, are best purified by the elements whence they sprang." Ibid.

"Vessels of copper, iron, brass, PEWTER, TIN, and LEAD, may be fitly cleansed with ashes, with acids, or with water." Ibid.

"The purification ordained for all sorts of liquids, is by stirring them with cusa-grass; for clothes folded, by sprinkling them with hallowed water; for wooden utensils, by planting them." Ibid.

"For the sacrificial pots to hold clarified butter and juice of the moon-plant, by rubbing them with the hand, and washing them at the time of sacrifice. P. 138.

"Leathern utensils, and such as are made with cane, must necessarily be purified in the same manner with clothes; green vegetables, roots, and fruit, in the same manner with grain." Ibid.

"Silk and woollen stuff, with saline earths; blankets from Nepaul, with pounded *arishtas*, or *nimba*-fruit; vests and long drawers, with
the

the fruit of the bilva ; mantles of *cshuma*, with white mustard-seeds." Ibid.

" Utensils made of shells or of horn, of bones or of ivory, must be cleansed by him who knows the law, as mantles of *cshuma* are purified." Ibid.

In page 261, we find punishments ordained " for mixing impure with pure commodities, for piercing fine gems, as diamonds or rubies, and for boring pearls or inferior gems *improperly*."

How severely indeed they punished fraud in traffic, and with what jealous vigilance the Indians guarded from base alloy that gold which they received in such plenty from all quarters of the known world, will be evident from the following severe law, which may be given as a striking specimen of the unrelenting aspect of Hindoo justice.

" The seller of bad grain for good, or of good seed placed at the top of the bag, to conceal the bad below, and the destroyer of known land-marks, must suffer such corporal punishment as will *disfigure* them ;" as, for instance, depriving them of their eyes or hands. P. 283.

" But the most pernicious of all deceivers is a goldsmith, who commits frauds ; the king

shall order him to be *cut piecemeal with razors.*" Ibid.

The duty of a Bice, or merchant, is thus summarily recapitulated towards the close of chapter the ninth,

"Of gems, pearls, and coral, of iron, of woven cloth, of perfumes, and of liquids, let him well know the prices both high and low." P. 287.

"Let him be skilled likewise in the time and manner of sowing seeds, and in the bad or good qualities of land ; let him also perfectly know the correct modes of measuring and weighing." Ibid.

"The excellence or defects of commodities, the advantages and disadvantages of different regions, the probable gain or loss on vendible goods, and the means of breeding cattle with large augmentation." Ibid.

"Let him know the just wages of servants, the various dialects of men, the best way of keeping goods, and whatever else belongs to purchase and sale." P. 288.

A RETROSPECTIVE VIEW TAKEN OF THE
GRADUAL PROGRESS OF THE INDIAN
AND OTHER ORIENTAL NATIONS IN
SHIP-BUILDING, WITH STRICTURES ON
THE FORM AND EQUIPMENT OF THE
ANCIENT VESSELS.

I HAVE already observed, that the great rivers of India, as well as the vast number of them, intersecting the country as they do in every possible direction, and many of them at certain seasons of the year, like the Nile, overflowing their banks, and fertilizing the soil, must very early have had the effect to make the Indians acquainted with the art of navigation, especially as it was on the banks of those rivers, as well on account of superstitious motives as for the convenience of inland commerce, that the first Indian cities were erected. Their first efforts in this way were, doubtless, confined to voyages up and down the Ganges and Indus, and their vessels, probably, consisted of that kind of boats, made of great canes or reeds, or, as we call them, bamboos, which grow plentifully on the banks of the large rivers, and in the fens and marshes

of India, and with which, closely compacted together, and probably covered, like those of the old Britons, with raw hides, according to Diodorus Siculus, the Indian monarch, whom the Greeks have recorded under the name of Staurobates, formed a fleet, to the number of four thousand, to oppose the fleet of Semiramis on the Indus.* In this engagement, however, the former was unsuccessful, and the reason seems to have been, (for I am inclined, under certain limitations, to admit the fact of such a battle having taken place, though reported by the fabulous Ctesias,) that the Assyrian sovereign had engaged her Phœnician subjects, who were more expert mariners than the Indians, to build that fleet, and direct its operations against the unpractised enemy.

Of the ships that composed this fleet, after all, no very magnificent idea can be formed, since it was built in detached pieces on the coasts of Cyprus, Syria, and Phœnicia, and transported thence, on the backs of camels, to the Indus ; and with respect to the reed-constructed boats, covered with leather, so often mentioned above, as belonging both to the

* See Diod. Sic. lib. ii. p. 95, and Suidas ad Vocem Semiramis.

old Britons and Indians, with whatever contempt we may look upon them, they were certainly the only ones made use of by all nations, except the adventurous maritime race of Phœnicia, during the early periods of the world. We have no account of any others being anciently used in the rivers of Ethiopia, Egypt, and the Sabæan Arabia ; and it is on this account Virgil assigns to Charon, the infernal ferryman, a boat made of materials of the same kind :

————— *Gemuit sub pondere cymba*

SUTILIS. —————

Æneid VI. 414.

In truth, these boats themselves were a great improvement on the simple floats, composed of rafts bound together with thongs made of the sinews of animals, that formed the first transports. They were built hollow to resemble the canoes, which, consisting of the trunks of trees, excavated by fire, served to convey the primitive race of men, as the larger floats did their articles of barter. Hides, doubtless, hardened and prepared with great care, served as a sheathing to these vessels, and over all was probably spread a coat of resin, or pitch,

more

more firmly to secure them against the penetration of the water. The Greeks, at least, we know were accustomed to fortify the outside of their vessels with pitch, mixed with resin, which gave them a dark appearance, and hence, in Homer, they are uniformly denominated *μελαιναι*, or black. The Romans in succeeding ages improved on this practice, and set the first example to posterity of sheathing vessels with metal, though this fact is not generally known; but I shall present it to the reader on the authority of Mr. Lock, who, in his History of Navigation, prefixed to Harris's voyages, informs us as follows: "Leo Baptisti Alberti, in his Book of Architecture, lib. v. cap. 12, has these words: But Trajan's ship having been weighed out of the lake of Riccio, at the very time while I was compiling this work, where it had laid sunk and neglected for above thirteen hundred years; I observed that the pine and cypress of it had lasted most remarkably. On the outside, it was built with double planks, daubed over with Greek pitch, caulked with linen rags, and over all a sheet of lead fastened on with little copper nails. Raphael Vولاتerranus, in his Geography, says, this ship was weighed up by the order of Cardinal Prospero Colonna.

lonna. Here we have caulking and sheathing together above sixteen hundred years ago; for, I suppose no man can doubt that the sheet of lead nailed over the outside with copper nails was sheathing, and that in great perfection, the copper nails being used rather than iron, which, when once rusted in the water with the working of the ship, soon lose their hold, and drop out."

A race constantly residing on the banks of rivers, who were possessed of such vast extent of sea-coast, and who, probably, in part, supported themselves by fishing, could not fail of observing both in what manner and with what agility the tenants of the watery element urged their way through that element. The remark of Pliny, therefore, that their fins suggested to them the first notion of oars, and the tails of birds, with which they viewed them direct their flight through the pathless air, the use of the helm,* is founded in reason and probability. The attempt to collect the aid of the winds, by expanding a sail to accelerate their progress on rivers, and in creeks, must, at first, have proved a hazardous, and, in many instances, a fatal, experiment. But, in this

* Plinii Nat. Hist. lib xii. p. 551.

instance,

instance, the same analogical deductions operated upon them as in the former, and from observing how the feathered tribes, by expanding their wings, and catching the full gale, were borne along through the fields of æther, they learned to give the same aid to their ships, gliding through the trackless water. The resemblance of a ship with sails to monstrous birds, with their pinions extended, infected the minds of all the ancient poets and mythologists, and in this fancy we find the origin of all the fables relative to griffins and hippo-griffins; to the winged dragons of Triptolemus, and the flying steed Pegasus, the offspring of Neptune: these were only ships with out-spread sails, in which the daring adventurers sailed on their respective expeditions, and astonished by their naval exploits an ignorant and credulous age.

In the infancy of navigation, indeed, no ships had more than one mast and one large sail; but convenience, added to increasing experience, brought into use a variety of both, whose respective names, are recorded by Scheffer,* but which need not be recapitulated in this place.

* Schefferus de Militia Navale, lib. ii. cap. 2.

In the progress of this investigation hitherto, the extreme remoteness of the æra, reaching up to the birth of man and the dawn of science, has prevented any attempt to fix the precise period in chronological history to which the different improvements in nautical science, civil and military, belonged. But since, by some authors of repute, the fleet of Semiramis has been considered as the first naval effort, and it is certainly one of the earliest recorded on the page of history, it becomes necessary to state, with as much certainty as we may be able, that period. And here we cannot conceal our suspicion that the æra assigned to that invasion, in Usher's Chronology, is much too low in the annals of the world; and the mistake has, probably, arisen from there having flourished several Assyrian sovereigns, who bore that celebrated name. According to that chronologer, this memorable event took place about the twelve hundredth year before Christ, which approaches very near the period assigned, by Sir William Jones, to the collecting into a regular code the Institutes of Menu. But those Institutes represent the Indians as a nation already well skilled in maritime affairs, and report cases adjudged relating to adventures at sea. On that

that account, the more ancient date seems to me to be preferred, which places the event back five centuries nearer the flood. In truth, the Argonauts had performed their celebrated expedition half a century before the first-mentioned æra, and the Trojan war had already proved the occasion of bringing out the most formidable collective fleet that had yet sailed upon the ocean, consisting of near twelve hundred sail, of all shapes and dimensions ; though it must be owned those who navigated them exhibited but little dexterity in nautical concerns ; advancing very slowly in their progress, and never daring to venture far from the shore. Sesostris, too, it should be remembered, that Sesostris, who is said to have flourished above 1600 years before Christ, had long previous to this period, if Diodorus Siculus* may be credited, built, on the Red Sea, a fleet of four hundred ships, for the purpose of conquering the maritime regions of Africa, and subjugating India. The immense vessel, also, of cedar, two hundred and eighty cubits in length, decorated with golden ornaments on the outside, and beautified with silver within, which the same prince dedicated

* Diod. Sic. lib. i. p. 51, 52.

to Osiris, supposing there to be any basis for the story, argues no mean proficiency in naval architecture, by a race whose superstitious notions rendered them in general hostile to marine enterprizes. It was the invariable aim of this monarch, through a long and glorious reign, to conquer the violent aversion of the old Egyptians, towards engaging in sea-concerns; and he so far prevailed as to establish among them an order of mariners. These vast undertakings, however, were certainly above the skill of a people only beginning to cultivate nautical science, and we are irresistibly led in this instance, also, to conclude, that, in carrying them on, they had the aid of those Phœnicians who inhabited Idumæa and the regions of the Mediterranean coast nearest Egypt.

In the course of ages, and in the progress of science, the Indians, taught by experience to provide vessels adapted to war as well as domestic use, would naturally improve in the art of ship-building, and either by exerting their own lively-inventive genius, or by copying the Phœnician models, would soon learn to fabricate vessels capable of stemming the stormy billows of even the Arabian Gulph, the utmost limit of their maritime excursions southward.

southward. For ships of superior magnitude, strength, and burthen, they certainly did not want in the extensive forests of India abundant materials, especially in those which bordered on the rivers Hydaspes and Indus, and from which Alexander, in later ages, cut down the immense quantity of timber necessary to build the fleet of above two thousand sail, in which Nearchus performed his celebrated voyage through the Persian Gulph, and up the Tigris, into Mesopotamia.

Concerning the exact shape of those ancient vessels, it is impossible to write with any certainty; but it will probably excite in the modern mariner no small degree of surprise, to be informed of a circumstance, which, however, is confirmed by the unanimous voice of classical antiquity, that the first vessels fabricated by the human race were of a round form; and Bochart contends, that the ship Argo, being the first long ship ever used on the ocean, was thus denominated from Arco, a Phœnician word, signifying *long*.* The same author informs us, that the navy of Tyre consisted of two sorts of vessels, the one being round ships, which they denominated Gauli, the other long ships, or galleys, which

* Bocharti Sacr. Geograph. p, 819.

they termed *Triremes*, or ships of three banks of oars, supposed to be of their invention. Of these, in battle, they placed the long vessels in the centre, while the round vessels formed the wings of the fleet. In truth, the first ships were built round, or rather oval, because they were intended merely as transport-vessels and ships of burthen, and that form allowed ampler space for the stowage of provisions and those curious mercantile commodities which were the objects of mutual barter between the inhabitants of Oriental countries. The transport-vessels were generally towed along the great rivers with cords, as is the case at present in most countries where there flourishes any considerable inland navigation; the ships of burden were chiefly managed by sails, while those of war, for the convenience of more swiftly tacking about during an engagement, and approaching an enemy on the weakest side, were generally rowed with oars. Not that these latter were wholly destitute of sails, but in that infancy of navigation, when men were less dexterous in the use of sails than oars, the former were often an incumbrance, and sometimes, in tempestuous weather, or on a boisterous sea, were even the occasion of disaster and defeat. The Indians, whose ob-

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stinate adherence to old customs and maxims, however wrong and ridiculous, has been more than once animadverted upon, have not probably so far deviated from the maxims of their ancestors in ship-building, but that we may perceive in the present form of the junks that traffic along the coast of the Peninsula and the neighbouring ports of the Indian ocean, which are huge unsightly fabrics, almost as broad as they are long, a tolerable specimen of their ancient manner, and they are evidently built in the style of ships intended, by their capacious hold, to carry considerable quantities of stores.

In reality, the mercantile race of India had never any idea in the construction of them beyond their commercial use, nor ever intended them for longer voyages than at the most to the Gulph of Ormus and the Red Sea. It was the Phœnicians, and their colony of Carthage, who, being obliged to defend from Grecian and Roman invaders their valuable trade and extensive dominions, carried to the utmost point of attainable perfection, in those early times, the art of constructing and navigating vessels, whether commercial or warlike. By them, the ancient sails, which, in many instances, were made of no-
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thing but hides, sewed together, were exchanged for more flexible ones of linen, and the leathern thongs, or cords, used for bracing them and various other purposes, for others of hemp and flax. By them, too, the old clumsy anchors, which sometimes consisted only of a large stone, and sometimes of a log of wood, with a quantity of lead affixed, or a bushel of sand, let down to stay the course of the ship, were displaced for anchors of iron, having at first one, and afterwards two, teeth, or flukes. It is a circumstance too much connected with our present subject to be omitted, that, according to Scheffer, cited before, the Portuguese, at their landing on the coast of Malabar, actually found the first species of rude stone anchor in use among the inhabitants of Calicut, while their vessels themselves were flat-bottomed, had one mast, with one triangular sail, and were, in general, of the burden of two hundred tons. With respect to the merchant-ships used at this day by the Indians, for the purpose of carrying on their export-trade, they are mostly built of TEEK, a firm lasting species of timber, growing plentifully on the mountainous regions of Malabar, and their cables and other cordage are made of the fibres of the nut of the cocoa-tree.

tree. Indeed, the whole vessel is frequently formed of planks cut out of that tree, and the reader may see an account of the building of one of this sort, by Marco Polo, who visited India in the 12th century, inserted at length in the *Anciens Relations* of M. Renaudot, who, from authentic sources of information, adds, that this useful tree not only “affords materials wherewithal to build a ship, but to load her also when she is finished. The great planks of the trunk serve for her hull and masts; with the filaments or fibres of the nut, they spin the cordage and the sails; and they caulk her with the coarser stuff, and the oil extracted from the tree. They load her with nuts, both green and dry; and of the liquor they draw from them, which is very pleasant and sweet, if not kept too long, they make a kind of cream, comfits, butter, and an excellent oil for wounds.”* This tree is a native of the regions that lie within the confines of the torrid zone, both of the Eastern and Western world, and the Indians of the Maldives very ingeniously employ the filaments of the same nut in making shirts, short vests, and other articles of light apparel.

* Ancient Accounts of India and China, in the notes, p. 20.

They use in their rivers, and in landing goods from foreign vessels, large flat-bottomed boats, whose sides are five or six feet high, the planks of which are very thin, and sewed together with their cordage; yielding like pasteboard, if they should happen, as is frequently the case, to strike against the shallows of the shore; for which reason the English employ them in preference to their own boats.

To return to the consideration of the progress of the Phœnicians in ship building. Those, who invented the triremes, would, in course of time, naturally proceed to the formation of quinquiremes and galleys of a still greater number of banks of oars, but it was left to their ambitious and daring rivals of Greece and Rome to build such floating mountains as were the galleys, concerning which something will be said hereafter, of thirty, forty, and even fifty, banks of oars; nor can we form any conception how it was possible to navigate them to any purpose of utility. These orders, or ranks of oars, were ranged, one above the other, not directly or perpendicularly, as some have absurdly imagined, but rose by a gradual ascent, each at the back of the other, from the lowest to the

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highest region of the vessel. To prevent attrition from constant use, the blade, or broad part of the oar, was generally covered with plates of brass; but, as this addition would naturally have the effect to render the long oars used in the highest range extremely ponderous in the water, it was customary to put lead into their handles, by way of counterbalancing them. It was also the custom of the ancients to fortify the prow, that important part of the ancient vessels, on the strength of which so much depended, with brass; and Suidas even intimates, that those used by Semiramis against the Indians were thus armed;* a circumstance which, if credible, fully accounts for her superiority over the numerous but cane-constructed barks of her enemy. For to these prows were fastened rostra, or beaks, (still preserving the allusion to birds of prey, whose beaks, or bills, are their principal weapon of offence,) and these were generally fabricated of solid brass, sometimes to the number of ten, whence Æschylus gives to Nister's ship the epithet *δεκεμβολος*, *ten-beaked*. With the strong sharp points of these beaks, which protruded considerably

* Suidas in Voce Semiramis.

beyond the prow, under the water, they assailed, and broke in pieces, the hulls of the enemy's ships, while a shower of darts and javelins annoyed the crew from above, and those other terrible engines of destruction used on board the ancient vessels, and enumerated by Scheffer, the *δελφιν*, or dolphin, an immense ponderous mass of lead or iron, cast in that form, and thrown with violence into the vessel with intent to sink it; the *αρπαγες*, harpazines, or vast iron harpoons, for penetrating and rending it, the great naval ballista and arietes, or machines for hurling stones and battering their sides, and the long scythe-like instruments used for cutting their sails and cables, all acting together, contributed to render a naval conflict in ancient, scarcely less tremendous than in modern, periods. Although sails are here mentioned, yet, as we before observed, it was late before they were brought in to the aid of navigation, and later still when they came to be made useful in marine engagements, from the ignorance of the ancients in the mode of rightly managing them, at a moment when mismanagement must infallibly have been attended with defeat and ruin. Ships, provided with oars only, were, therefore, at first, used on these

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occasions,

occasions, but at the same time, to render them more under command, and that they might more easily tack about in an engagement, they were furnished with two, three, and even four, rudders, a circumstance alike perplexing to the comprehension of the modern mariner: of these, two were affixed to the fore-deck and stern; and the other two to the sides. These early engagements also necessarily took place near that shore from which they dared not venture far by day, and close to which, at night, they were accustomed to anchor, till the Phœnicians, applying astronomy to the purposes of navigation, began first to undertake nocturnal voyages, and steer their course, after the same manner as the Arabian and Syrian merchants had long directed theirs, through the sandy deserts of their respective countries, by the light of certain brilliant constellations, whose strong and constant lustre invariably pointed out the polar regions of the heavens. Then it was that they boldly expanded the various sail, and, by long and diligent observation, becoming acquainted with the trade-winds that blow periodically in the equatorial regions, united in one centre the trade of distant nations, and were enabled to barter the tin of

of Britain for the gold of Ophir and the pearls of India.

THE ANCIENT COMMERCE CARRIED ON
BY THE GREEKS, WITH INDIA AND
BRITAIN, DETAILED.

AFTER taking the preceding view of the trade of India, one of the greatest and most populous empires of the world, the eye of the historian of Asiatic commerce is, by the course of time and events, directed to Attica, a country so very contracted in its limits, as scarcely to contain two hundred and fifty square miles, and in respect to population, so little to be compared with the former, that its native inhabitants, at no period, exceeded fifty thousand, independent of its slaves, which were indeed disproportionably numerous, but are not to be ranked in the class of citizens. Small, however, as were its limits, and naturally barren as was its rocky soil, the republic of Athens produced fleets so numerous and powerful, as acquired for it the supreme dominion of the ocean; and armies, whose invincible energy subjugated to its control the most puissant sovereigns of Asia. The recollection

recollection of the military glory and the love of freedom that exalted this distinguished nation, its unrivalled renown in the noblest walks of genius and science, and indeed the very names of a long series of celebrated statesmen, heroes, and philosophers, unavoidably kindle in the mind that takes this retrospective survey, an ardent desire to launch into nobler disquisitions than those which merely concern their commerce; that commerce, however, being the only allotted subject of this discourse, we must steer through it with the undeviating accuracy of the Grecian pilot, nor be tempted by the fascinating splendor of any foreign subject to wander from our course. I must, notwithstanding, take permission, previously to the succeeding strictures, of repeating my former assertions in respect to the Greeks not being the inventors of the arts and sciences for which they were so celebrated, though, doubtless, they surprisingly and rapidly improved those, the principles of which they originally received from their Oriental neighbours, as, for instance, astronomy, chemistry, and navigation; while all the more elegant and liberal arts, painting, sculpture, music, and designing, may justly be called their own. In truth,
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the light, which beamed upon them from the Higher Asia and from Egypt, was reflected from Greece upon Europe; they were the focal point in which the rays of Oriental genius were concentrated; at the same time they were to us the medium through which those rays were transmitted. We were awed by their majestic beauty; we were dazzled by their transcendant lustre; and mistook the *reflected* for the *primordial* beam.

Cecrops, who, according to Diodorus Siculus,* with a colony of Egyptians inhabiting the Saitic mouth of the Nile, and therefore *mariners*, and an exception to the generality of the Egyptians who shrunk with horror from sea-adventures, migrated hither so early as the year 1600 before Christ, doubtless brought with them such general elements of the science of navigation as were then known in the infant world; and we learn from the same author, that, when he founded the monarchy of Attica, (for Attica, though in succeeding ages a republic of the first note in history, was at first a monarchy,) that prince divided the people into four distinct tribes, called Cecropis, Autochton, Actea, and Pa-

* Diod. Sic. lib. i. p. 33.

ralia, in which he acted with remarkable conformity to the maxims of the Indian and Egyptian legislators, who thus divided the nations over whom they respectively ruled. Nearly a century afterwards, Danaus sailed into Greece from the same quarter, and seized on the throne of Argos ; while Minos, the great legislator of Crete, the similitude of whose name and laws to those of the great Menu of India has been remarked by Sir William Jones,* had a numerous navy on the Cretan sea. Numerous, however, as it was, it must still have been very inadequate to any useful purpose of defence or commerce, since Dædalus, whom the Greeks, in a well-known mythological fiction, have recorded as the first inventor of sails, was not then born. Their grand and united effort, the Argonautic expedition, did not take place till about 1150 before Christ. The disputed object of that expedition is out of the question ; it is sufficient to remark, that it was the first ship equipped for war that sailed out of the ports of Greece : and in those days the voyage to Colchis was a subject of scarcely less celebrity than the discovery, in more recent periods, of the voyage

* Institutes of Menu, in the Preface, p. 9.

to India by the Cape of Good Hope. The consequence of that expedition upon the maritime genius and efforts of all the Grecian states was such, that, in less than fifty years, they were able to furnish twelve hundred ships, of all descriptions, to carry on the war against Troy; and of that number the Athenians alone, according to Homer,* furnished fifty vessels.

With the destruction of Troy expired that ardor of naval enterprize, which had begun to distinguish the rising republics of Greece; an additional proof of its having in great part originated from a foreign source, the immediate impulse of which upon their minds having ceased, their conduct was of course no longer influenced by it. No grand naval exploit of that nation is, for several centuries, recorded on the page of history: their mariners, during this long interval, were either dispersed among the vessels of the Phœnician merchants, or piratically infested that element on which the daring nautical genius of the former engrossed the traffic, and disdained a rival.

The ruin of the elder Tyre, near the commencement of the sixth century before Christ,

* Iliad, lib. ii. v. 94.

by the Assyrian monarch Nebuchadnezzar, called forth into action the dormant ambition of Athens, to possess the palm of commerce and the sovereignty of the ocean. Their progress, however, in navigation, was necessarily slow, from the infant state of astronomical science among them, since, as yet, they only knew to steer the course of their vessels by the stars in Ursa Major ; a most uncertain guide in remote and hazardous voyages, since that constellation very imperfectly points out the pole, and the stars in its extremities are at the distance of above forty degrees from it. It was not till Thales, the inventor, according to the Greeks, of the asterism of the Lesser Bear, had returned from Egypt, that they became acquainted with, and were able to sail by, the unerring light of the pole-star. That philosopher brought with him the grand postulat-um, together with many other splendid attainments in science, from the caverns of the Thebais, about the middle of this century, and proved to Greece what the Cynosure was to navigation ; the guiding star of its expanding genius. From that instant her naval glory began to dawn, but it was not till after the invasion of Greece by Xerxes, and the final annihilation of the Tyrian empire by Alexander,

Alexander, that it reached its meridian. The Athenians were not without rivals in the contest for maritime dominion; the indefatigable race of Ægina, and the voluptuous, yet mercantile, sons of Corinth, long combated their claim to that enviable distinction; till, at length, the former being subdued by the Athenian arms directed against them by the immortal Pericles, and the latter having called in the same power to aid them against the Spartan army, which, under the command of Agesilaus, had laid siege to their sumptuous metropolis, the Athenians became triumphant on the ocean; and, closely pursuing the tract of the Phœnician vessels, displayed the banners of Greece on the shores of the Cassiterides and in the Gulph of Cambay.

Before, however, I proceed to state the particulars of the flourishing trade carried on by this enterprizing people with those remote regions, it is necessary I should notice two events, in producing which the Greeks were greatly instrumental; events of great importance as to their consequence on the commerce and kingdoms of the east, but principally relative to those of Egypt and Persia, to whose history therefore I must, for a short period, direct the attention of the indulgent reader.

CURSORY REFLECTIONS ON THE LIMITED
NAVAL CONCERNS OF THE ANCIENT
EGYPTIANS AND PERSIANS.

I HAVE not hitherto, in any particular manner, mentioned the maritime concerns of the ancient Egyptians, nor yet of the ancient Persians, for, in fact, neither of those nations were greatly addicted to nautical adventures. The former were prevented from becoming so by their abominable superstition, which led them to consider the ocean, probably from some faint traditions relative to the deluge, as the enraged Typhon, the restless enemy of the benign Osiris. I have, however, already observed, that Sesostris, 1600 years before Christ, had endeavoured to conquer this rooted aversion of the Egyptians to naval enterprizes ; that he contrived to have a fleet of four hundred ships of war on the Arabian Gulph, and that he instituted among his reluctant subjects a marine class. Their deeply-rooted religious prejudices were, doubtless, one, but not the only, cause of their aversion to the sea and foreign trade ; for, happy in their own genius, and in a most fertile soil,
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the ancient Egyptians, like the modern inhabitants of Japan, were internally rich in every thing necessary to their happiness and convenience; and, except minerals and some particular gums consumed in religious rites and in embalming the dead, wanted not the luxuries which foreign commerce introduces. Not that they were entirely destitute of that species of commerce, but they suffered other nations, more addicted to nautical concerns, to be their factors and agents. Able as they were, from their situation, to command the whole navigation of the Red Sea, they relinquished the natural right of their country to the more adventurous Tyrian and Idumæan mariners; and were content to receive, through their hands, the Arabian incense that burned in their temples, and the Indian drugs annually swallowed up by the rapacious jaws of the catacombs. For these they bartered the emeralds of the Thebais; the fine glass, fabricated from the ashes of the celebrated plant *kali*, at the great Diospolis, in which city the manufacture of this article rivalled, if not exceeded, the antiquity of those of Sidon; the *natron* that grows so abundantly in that country, and even at this day supplies the shops of European druggists; the paper formed from *the*
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reed of the Nile, from which its name is derived ; the linen woven from the flax of Egypt ; and, above all, the corn, which may be considered as the staple of that country, and grew there in such luxuriant abundance, as through all antiquity caused Egypt to be considered the granary of the world.

In return for these articles the Phœnicians gave them OIL, which was ever the abundant produce of the olive-groves of Syria and Palestine ; and this, it will be remembered, was one of the articles with which king Solomon repaid the kindness of the Tyrian monarch, in furnishing him with cedar and cypress for building the superb temple of Jerusalem : the Scripture expressly mentioning the former's annual present of *twenty thousand measures of wheat, and twenty measures of pure oil* : the oil they exported to Spain and other countries, but the insular scite, the vast population, and contracted territory, of Tyre, required not less the grain of Syria than that of Egypt for the support of its innumerable citizens. They also imported into Egypt that timber of which her own soil could not furnish even the small quantity used in her public and private edifices ; the various fragrant productions of the Arabian and Indian gardens ; and the precious
metals

metals of which the lower Egypt was wholly destitute; the principal among which may be enumerated the gold of Sofala, the silver of Spain, and the TIN of Britain. I particularize this last article, because, independent of the great advance of the Egyptians in metallurgy, (and tin, it has already been observed, is mentioned in the Pentateuch of Moses, learned in all the wisdom of the Egyptians, and in the writings of Homer,) we meet, in ancient classical writers, with very ample and repeated testimony, that the Egyptians, in the glass-houses of Diospolis, knew how to fabricate mirrors of stupendous magnitude; and, though hence it does not absolutely follow that these mirrors should be of TINNED GLASS, yet the use to which they applied, at least, two of these mirrors, affords very strong reason for that supposition; since, if composed of any metal-line substance, the situation in which they were placed must unavoidably have exposed them to obscurity or corrosion. One of these mirrors, according to Strabo,* was elevated on the summit of the great temple of Heliopolis, *or the city of the sun*, to reflect

* Strabo, lib. xvii. p. 492.

into that temple the full splendor of its meridian beam ; while another of still more prodigious dimensions was, in later periods, erected on the Pharos of Alexandria, and so placed as to reflect ships approaching Egypt at a vast distance, and imperceptible by the eye from its loftiest pinnacle.

Unwearied as were the exertions of Sesostris, recapitulated above, they were only the transient efforts of an enlarged and liberal mind, spurning at and trampling down vulgar prejudice ; those vessels were, in all probability, provided with their rigging, cordage, and other furniture, and navigated, by the Phœnicians. With that prince the project of extending their power by foreign conquest expired ; and all ideas of the necessity of keeping up a powerful navy seem to have been erased from the minds of his more politic successors on the throne of Egypt. If such, however, had not been the case, there was one insuperable objection to their maintaining any considerable navy ; I mean the above-mentioned total want of timber proper for its construction and repair, of which the whole country was so entirely destitute, that even the boats on the Nile were obliged to be fabricated either of baked earth glazed and varnished, or of
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rafts sewed together with the papyrus. Happily for the Egyptians, the views of those pacific princes were solely directed to the establishment of a vigorous internal commerce between the respective provinces of that fertile kingdom ; to constructing canals for the more equal distribution of the waters of the Nile ; and raising stupendous bulwarks to secure the Delta from being a second time desolated by the ravages of the robbers, known to us by the name of the Scenite Dynasty, a race whose recorded barbarities evince them to have been the most unfeeling tyrants that ever governed the oppressed progeny of Mizraim. In consequence of this relapse of the Egyptians into their ancient prejudices, no port remained open on all the coast of Egypt for the admission of foreign vessels for nearly a thousand years, except Naucratis, a most celebrated mart, situated not very remote from Sais, then the capital of Lower Egypt, and which gave its name to one of the mouths of the Nile. It was Psammetichus, the first of that name, who, rejecting the contracted policy of excluding strangers from Egypt, threw open its ports to all nations, and gave a firm settlement to his allies, the Greeks, who were so in-

strumental in fixing him on the throne of that kingdom.*

In respect to the Persians, they were equally restrained, by the precepts of religion and policy, from engaging in maritime expeditions. The element of water, not less than that of fire, was the object of their superstitious veneration, and while that superstition made them shudder at the idea of polluting it themselves, by any species of filth, thrown from vessels, the dread of invasion from a quarter in which they were so defenceless, induced them to prohibit the entrance of foreigners into their dominions, by any maritime inlet, under penalties extremely rigorous. Indeed, to render that event impossible by the channel of their two great rivers, the Tigris and the Euphrates, they effectually dammed up the mouths of those rivers with immense engines; to remove which cost Alexander, when his fleet, under the command of Nearchus, sailed, by the route of the Persian Gulph, into Mesopotamia, no small portion of time and labour. At length, roused to a sense of danger by the accounts brought to the court of Persia, of the naval armaments

* Herodotus, lib. ii. p. 163.

fitted out by the rising states of Greece, their dauntless and aspiring neighbours, the Persian sovereigns, broke through the fetters of that ancient superstition, and, by the assistance of the Phœnicians, and even the Greeks themselves, constructed a navy, and ploughed the forbidden ocean. In this new project, ambition also had a considerable share, and it was a desire of exploring and conquering the western provinces of India, that induced Darius to fit out at Caspatyra, on the Indus, the fleet so celebrated in history, of which he gave the command to Scylax, a Carian Greek, with express orders to sail down the current of that rapid river; diligently to observe the countries that lay on either side of it; to enter the great ocean beyond it; to coast along the Persian and Arabian shore; to enter the Red Sea by the Straits of Babel-mandel; and, finally, sailing up that Gulph, to land in Egypt, and by that route return to the capital of Persia. This tedious, and, for those days, hazardous, navigation, Scylax successfully accomplished in the thirtieth month from its commencement, and, arriving at the court of Susa with the desired intelligence, animated that monarch to an undertaking which added so much lustre to his

crown, and brought so large an increase of revenue into his treasury. It will scarcely be expected, after the ample astronomical detail exhibited in the former portion of this volume, that a circumstance so remarkable as that of the revenue thus acquired amounting to 360 talents, the exact sum of the days of the ancient year, should be omitted being noticed in this place; more particularly, as it is an undeniable proof of the Persian year being not at that time reformed. It is probable, that, in this expedition of Darius into India, he learned from the Brahmins the true number of the days of the reformed year; since, in the pompous march of Xerxes, to dispute the empire of the world with Alexander, the number of youths clothed in scarlet robes, the emblem of the solar fire, arranged with a view to the same mythological superstition, was three hundred and sixty-five.* It should be also remarked, that this tribute from the newly-conquered province of India was paid in gold, while that of all the other Satrapies was paid in silver; and that the Indian tribute alone, according to Herodotus, amounted to 4680 Euboic talents, nearly a third

* Herodotus, lib. ii. p. 189, and Quintus Curtius, lib. iii. cap. 3.

part of the whole revenue of his other dominions, which was 14,560 Euboic talents, or 2,807,437*l.* sterling.* The reason of its being paid in gold rather than silver is properly assigned by Rennel, from the Ayeen Akbery, that “ the Eastern branches of the Indus, as well as some other streams that descend from the northern mountains, anciently yielded gold-dust.”† The value of the ancient talent varied extremely in different countries of Asia; if the Indian tribute was paid in Euboic talents of gold, it must have amounted to an immense sum, and far greater in proportion than the other nineteen provinces into which the Persian empire was divided. We must not, however, suppose the larger sum mentioned above to have been the total of the revenues of Persia, for many of the distant kingdoms, subject to that throne, paid their tribute in kind; as for instance, that of the Satrap of Armenia, according to Strabo, was twenty thousand young horses, while the governor of Arabia, the country of aromatics, furnished that luxurious court with frankincense equal in weight to a thousand talents.‡

* Herodotus, lib. iii. p. 288. et seq.

† Rennel's Memoirs, p. 25.

‡ Strabo, lib. ii. p. 530.

Independent of the damming up the mouths of their great rivers, other impenetrable barriers against the entrance of strangers on the side of the sea, and the establishment of a maritime commerce were eagerly sought after by the jealous policy of the Persian monarchs, who, in order to render their country still more secure from invasion, were induced to leave utterly uncultivated the southern region of the province of Gedrosia, naturally barren, and scorched up by the beams of an almost direct sun. Along the whole of this extensive coast, and the southern parts of Carmania, which stretches from the Indus quite to the Persian Gulph, no city was, in those days, to be seen; no friendly port opened its broad arms to the storm-beat mariner: it was left in the possession of enemies more hostile to the human race than even the inhospitable savages of the dreary Æthiopian coast, the blast of pestilence, and the desolating fury of famine. It was in those desert regions that the armies of Semiramis and Cyrus perished, and that Alexander lost three parts of his numerous and triumphant troops. Of its maritime limit, by far the greater part was an unpeopled desert, and of the inhabited parts a miserable race, who subsisted on fish, and
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the plunder of wrecks, afforded to occasional visitants a dreadful specimen of the sterility of the country and the barbarity of the natives. By these precautions the Persian sovereigns not only prevented the Phœnician, Carthaginian, Grecian, and other formidable naval powers, from penetrating by that route into the heart of Persia, but kept sacred from the intrusion of foreigners that vigorous and peculiarly lucrative commerce, which had been immemorially carried on between the more northern provinces of their empire and those of India, and which, in this survey of the ancient commerce of Asia, is highly deserving our attention.

In the geographical part of this work, vol. i. chap. 3, when speaking of Candahar, a city said to have been erected by Alexander, in all probability on the scite of one still more ancient, and to have been so denominated from his Eastern name of Secander, I observed, from Ayeen Akbery, that, being situated on the mountains of Paropamisus, which separate Persia from India, that fortress has, in all ages, been considered as the gate of Hindostan towards Persia, as Cabul was towards Tartary; and I added, from Sir William Jones, that, according to the Indians, no
 person

person could properly be called ruler of India, who had not taken possession of Cabul. It was through these gates that the current of a most extensive traffic, in all the various produce of the three empires, continued to flow in those early periods, and probably centred at the great and ancient city of Lahore, on the Rauvee, the noblest branch of the Indus, and the favourite residence of the early kings of India, of which also the reader will find, in the second chapter of the same Dissertation, a minute description from authentic writers. Whichsoever of the great Indian cities was at that time the capital, Delhi, Canouge, or Pali-bothra, (for in those ages we must not mention Agra, then only an obscure mud-walled fortress,) the direct road to it lay through Lahore, and we can alone be enabled to form a just idea of the importance and value of its commerce, by reflecting that two of the most splendid and luxurious courts that Asia ever witnessed, Babylon and Persepolis, success-articles that contributed most to their magnificently obtained, by this route, those sumptuous cence. In ages of such remote antiquity as that in which the Assyrian monarchy flourished, unless we allow a very intimate commercial connection to have subsisted between that empire

empire and India, we are at a loss to account for that profusion of wealth and pomp that decorated their palaces, the infinity of gems that glittered in the superb temple of the Syrian goddess, and the aromatic gums that eternally flamed on her altars.* An enumeration of a part of those riches will be given hereafter; and though they might obtain from Arabia and Syria many precious woods and drugs, together with gold and ivory, brought by the ships of those nations from the continent of Africa, yet there were many valuable commodities in the highest request among them, as silks and embroidery, which the Persian had not then begun to manufacture, together with curious porcelain, and vases of agate and chrystal, which could not possibly be obtained through that quarter. It is more than probable, that those great trading nations, in the remote periods to which we allude, supplied themselves at Babylon and Susa with the Indian manufactures, transported thither by caravans, through the northern Carmania and Aria, the modern Herat.

* See Diodorus Siculus on the Palaces of Babylon and the Temple of Belus, lib. ii. p. 97.—See also Lucian de Syr. Dea, cap 32 and 33.—And Chârdin on the Ruins of Persepolis, tom. ii. p. 150.

What Cabul and Lahore were in India, the great city of Hecatompylos, in Parthia, or the city with a hundred gates, so denominated, according to Polybius,* because all the roads in the Parthian dominions, centred there, was in ancient Persia ; and it is a remarkable fact, that the modern city of Ispahan, supposed to have been erected on its ruins, according to Tavernier, stands exactly in the same predicament as the great central mart of modern Persia.† He adds, that at present it has ten gates ; that the road, generally travelled by the caravans passing into India, is from that capital to Candahar,‡ of which he gives the respective stages and their distances ; and that this route is principally used on account of the great plenty of water to be met with in the course of it. From Candahar to Cabul he acquaints us is a journey of twenty-four days ; from Cabul to Lahore takes up twenty-two ; and from Lahore to Delhi eighteen ; but that the merchants, when their business is urgent, quit the caravans, and take horses, ten or a dozen in company, and ride the whole journey in about a third of the time

* Polybius, lib. x. cap. 25.

† Tavernier's Persian Travels, p. 149.

‡ Ibid. p. 257.

in which it is performed by the caravans. As in the dreary and inhospitable tracts that form the boundaries of the Persian empire towards India, the face of nature, since that period, is not changed, and as water is so indispensable an article to a caravan, the description of the road and stages by this modern traveller is, in all probability, applicable to the period when the ancient caravan travelled this road, to which the asserted building of Candahar, by Alexander, can be no valid objection; for it is unlikely that a post, so important as to be called the Gate of India, should have been without a fortress to secure and defend it. As the long and beaten track of a caravan in an inland Eastern country is seldom deviated from, so possibly the mode of arranging and conducting the caravans themselves is not so greatly altered, but that our author's description in one of his journeys to India may afford to the European reader a tolerable idea of the regulations anciently established among them, I shall transcribe from his entertaining page the principal circumstances enumerated during their progress. It is in Tavernier's *Persian Travels*, page 48, of the London folio edition; but is too long for insertion here, and I want the room it
would

would occupy for an extract more interesting to the Indian reader.

With respect to those numerous caravans, consisting of loaded waggons, which we have seen, from the Institutes of Menu, are so universally established in India, for the transportation from city to city of the native and inferior productions of Hindostan, the intelligent author above-mentioned, who resided so long at Agra and Surat, acquaints us, that this species of internal commerce is carried on almost entirely by means of oxen yoked to the wain, in more or less numbers as the wains themselves are more or less heavily laden. Sometimes they use the animal itself for that purpose, without the waggon; and he adds, it is not unusual for them to lay upon the back of those oxen 300 or 350 pounds weight.

“ It is an admirable sight to behold ten or twelve thousand oxen at a time all laden with rice, corn, and salt, in those places where they exchange these commodities; carrying corn where only rice grows, rice where only corn grows, and salt where there is none at all. They make use of camels sometimes, but very rarely, they being particularly appointed to carry the luggage of great personages. When the season requires haste, and they

they would speedily convey their merchandize to Surat to ship them off, they load them upon oxen, and not in wains. There is this great inconvenience for travellers, that when they meet with these numerous caravans in strait places, they are forced to stay two or three days till they are all past by. They that drive these oxen follow no other calling as long as they live, nor do they dwell in houses; for they carry their wives and children along with them. There are some among them that have a hundred oxen of their own, others more or less; and they have always one, who is their chief, that takes as much state as a prince, and has his chain of pearl hanging about his neck. When the caravan that carries the corn and that which carries the salt happen to meet, rather than yield the road, they frequently enter into very bloody disputes. The Great Mogul considering one day that these quarrels were very prejudicial to trade, and the transportation of necessary provisions from place to place, sent for the two chiefs of the caravan, and, after he had exhorted them, for the common good and their own interest, to live quietly together, and not to quarrel and fight when they met,

gave

gave to each of them a lack of rousees and a chain of pearl.

“ Of these carriers, there are in India four distinct tribes, each of which may consist of a hundred thousand souls. The first of these tribes carries nothing but corn, the second rice, the third pulse, and the fourth salt, which they fetch from Surat, and all along down the coast as far as Cape Camorin.

“ The caravan of waggons seldom exceeds the number of a hundred, or two hundred at most. Every waggon is drawn by ten or twelve oxen, and attended by four soldiers, whom the person that owns the merchandize is obliged to pay. Two of them march upon each side of the waggon, over which, there are two ropes thrown across, the extremities whereof they hold in their hands, to the end, that, if the waggon should lean on one side in ill way, the two soldiers on the other side may keep it from overturning, by pulling the ropes with all their strength.”*

After considering the general route of the caravans passing from the capital of Persia to

* See Travernier's Indian Travels, p. 28.

the capital of India, we come, in the next place, to inquire what were the principal commodities mutually exchanged, in the ancient times, concerning which we treat, by these two mighty nations. As the light of history, at least so far as the Persians are concerned, (for, we are well acquainted with what, in all ages, have been the imports and exports of India,) is on this subject but feeble, from the remoteness of the æra, we must be guided in our researches by examining the natural history of that country, and the bent of the genius of her inhabitants; of what articles she stood most in need, and with what she could best dispense.

The vast empire of Persia, then, in its various regions, exhibited to the beholder a strong contrast of objects. Some of its provinces were arrayed, by the hand of nature and the labour of man united, in the charms of a terrestrial paradise, abounding with flowers, plants and fruits, of exquisite beauty, brilliancy and flavour. In particular, they produced grapes of the choicest kind in luxurious plenty, of which they made variety of wines, with which the ancient Persians were not denied to regale themselves, as their Mahomedan descendants are, and one of transcendant

scendant excellence is still known to us by the name of Schiras wine. It was an allusion, probably, to the multitude of its vineyards in those ancient periods, that the golden bed of Darius was adorned with the stock of a vine in gold, whose expanded branches, containing clusters of jewels, rubies, emeralds, and amethysts, intended to represent grapes both green and in their various advances to maturity, over-canopied the recumbent monarch.* The pomegranates, also, of Persia, are acknowledged to be the largest and finest in the world; and the predilection of their ancestors for this species of fruit is attested by history and the grand monuments of Chelminar, or *forty pillars*, which are crowded with stupendous hieroglyphic sculptures, many in the form of this vegetable; while the historic page recording the magnificent march of Xerxes towards Greece,† informs us, that ten thousand of the Persian infantry, whose seem to have formed his body-guard bore javelins decorated with pomegranates; of whom one thousand had that symbol in gold, the other nine thousand in silver. The Persian melons and dates, too, are without a rival in Asia; and,

* See Athenæus, lib. xii. p. 408.

† See Herodotus, lib. vii. p. 328.

from what has been said, it may fairly be inferred, that these choice wines and delicious fruits, both pickled and preserved, to which may be added a great variety of medicinal drugs indigenous to Persia, were brought by her caravans to the famed emporia of Cabul and Lahore.

Other provinces of Persia, especially the more elevated regions towards the north, exhibited a prospect as cheerless and barren as the former was animated and fertile ; where the disgusted eye and the weary foot travelled over immense deserts of scorching sand, unsheltered by one solitary shrub, unrefreshed by one irriguous stream. Their inmost recesses were the gloomy, but secure, haunt of the savages of the desert. The intrepid youth of Parthia, however ardent in the chase, dared not pursue the lion or panther to that frightful abode ; and often the benighted camel, though patient of fatigue and thirst, expired beneath its load in their inhospitable bosom. The fortitude and industry of man, that shrunk from the danger of exploring the surface of those cheerless wastes, had yet penetrated with success their subterraneous regions. However externally barren and rocky those Hyrcanian solitudes, they were inter-

nally rich in mines ; and, though the metals dug from them were not of the most precious kind, being principally iron and copper, yet were they easily exchanged for them among their commercial neighbours of Arabia and Syria. The quantity of iron produced in their country supplied their numerous forges employed in the manufacture of swords and scimitars, celebrated through Asia for the excellency of their temper and the keenness of their edge. In those ancient times, too, when it was the delight of warriors to clothe themselves in mail, and shine in arms of steel or burnished brass, which is formed of mingled calamine and copper, we cannot doubt of the important advantage, in point of commerce, arising to the Persians, from the mineral wealth of their country ; nor that these and other articles of military request, the helmet, the buckler, the javelin, formed a considerable part of their ancient barter with the Indians, a nation, one of whose four grand tribes was, from early youth, wholly devoted to martial concerns.

Among the various articles enumerated as imported from Persia in after-ages into the Roman state, are reckoned Babylonian and Assyrian skins ; and the incessant and politic attachment

attachment of the Parthians to the *pleasures*, or rather, as it was their custom to hunt only the most ferocious beasts, the *toils*, of the chase, must infallibly have secured them immense spoils of this kind,—and the most valuable of these, the tiger's, the leopard's, the panther's, swelled the catalogue of the commodities transported to Cabul. It was not, however, alone the skins of dead animals in which the Persian merchants dealt: the caravans that carried these were followed by droves of living animals, reared with care in the wide champaign of that extensive country. The Persian breed of horses, whether for war or state, was more famous in antiquity than that of Arabia is at this day; especially that magnificent species bred in the Nisæan plains of Media, which were deemed inestimable. Horses, therefore, with their splendid caparisons and steely armour, formed another important branch of this vast traffic, and brought immense sums into the royal, as well as private, treasuries. They bred also mules and camels both for domestic and foreign sale; nor should the fine stuffs made of the camel's hair in Carmania, nor the still finer wool of that province, be wholly forgotten. Lastly, the bows and arrows, which they fabricated

and used with so much skill, could not fail of being vended in large quantities to a nation nearly as dexterous in the use of those weapons as themselves. For these, the Indians gave them the peculiar fruits of their own genial region ; all kinds of precious stones ; unwrought silk, brought from the Seres beyond the Ganges, together with cotton and fine linen, the labour of their own looms ; aloes, spikenard, and other perfumes ; the expressed juice of the sugar-cane, which then grew so plentifully in India, that they fed their horses with it, as they do at this day in Berar ; the indigo of Lahore, anciently the staple of that city, absolutely necessary to the Persians, as it was the basis of their famous BLUE, which they used, and still use, in dyes ; and all the rich variety of gums and spices produced in the peninsular regions of India.

From very remote periods, also, a considerable commerce seems to have been established between the countries situated far to the north and north-west of the fertile provinces which we have been describing with Grand Tartary, and even China itself, under the name of Serica, or the silk region.* For

* Plinii Nat. Hist. lib. xxi. cap. 3.

that silk, the cabinets, porcelain, and other rich and useful manufactures of China, so often and minutely enumerated before, *were* and *are* still bartered the most valuable furs and the finest ermines of the northern Asia, the musk of Thibet, and Siberian rhubarb, both the best of their kind in the world. It should not be forgotten, that the more northern provinces of Persia itself, Hyrcania, Margiana, Bactria, were formerly full of great and flourishing cities, whose inhabitants with avidity purchased the richest manufactures of India and China, brought to them by this route ; while, still farther north, the isthmus, which separates the Caspian and Euxine Seas, was covered with cities and nations now utterly exterminated. To be more particular, Eratosthenes, in Strabo,* informs us, that the merchandize of India passed by the Oxus through the Caspian, which the ancients, with inflexible obstinacy, persevered in supposing to have a communication with the northern, and some even with the Indian, ocean, into the sea of Pontus. We also learn from Pliny, that it was but a journey of seven days from the frontiers of India, through the country of

* Strabo, lib. ii. p. 87.

the Bactrians, to the river Icarus, which falls into the Oxus, down which stream the commodities of India were transported into the Caspian Sea. Thence, he adds, they were carried up the river Cyrus to a place within five days journey overland to Phasis, the capital of Colchis, in Grecian fable renowned for its golden fleece, which, in all probability, was nothing more than the golden produce of India, which the Argonauts secured by opening the commerce of the Pontus Euxinus, or Black Sea.* At this day, the Oxus no longer flows into the Caspian, the miserable policy of the modern Tartars having induced them to divert its course, as well as that of the Iaxartes; and these two noble rivers are now lost and swallowed up in the sands of that boundless desert. Colchis itself, whose splendid and crowded marts allured to that region of Asia all the nations of the earth, is now only a vast forest, and its few inhabitants are not only slaves themselves, but carry on the horrid traffic in human flesh to a vast extent. The Russians are now in complete possession of this northern commerce, which is carried on, by caravans, over the deserts of Siberia,

* Plinii Nat. Hist. lib. ii. cap. 17.

that enter the Chinese territories by Selinkskoy, in the 52d degree of north latitude; and Europe with astonishment has witnessed a traffic maintained between the capitals of two great empires, situated from each other at the immense distance of above six thousand miles.

To return from this long, though necessary, digression on the commercial concerns of Egypt and Persia to our survey of the Athenians, we shall scarcely wonder at their being more addicted to nautical adventures than any other of the states of Greece, if we recollect that the abrupt and rocky surface of their country denying to its inhabitants the advantage, so amply enjoyed by the Indians, of navigable rivers and canals, for carrying on a vigorous internal traffic, their attention was, of necessity, principally directed to maritime commerce. Still, however, their ships made not the same majestic appearance as those of the Phœnicians did; nor were they directed with the naval skill of that nation. Shipwrecks were frequent, and insurance, as well as speculation, frequently ran as high on the exchange of Athens as ever they have been known on that of London. In reality, the Euxine, the Ægean, and other seas,—seas of
such

such inferior magnitude, that the Mediterranean was comparatively the ocean to them,—which were principally navigated by the early Greeks, were so dangerous from shallows, and so subject to the agitation of tempests, that, whatever might be their ambition to rival the Tyrians and Carthaginians, they were compelled in general both to employ vessels of less magnitude, and load them with cargoes less valuable than those nations ; though in their more distant voyages, to India and Britain, they must of necessity have made use of larger vessels. An account which we have in Xenophon, in his *Œconomica*, of a Phœnician merchant-vessel, then in the port of Piræus, in which the dimensions of that vessel are compared with those of Greece, is an unanswerable confirmation of this statement. In truth, the Athenians were not accustomed to traffic in commodities of any very great bulk or weight ; theirs, except in some particular instances, was a trade in articles of elegance and luxury. Their exports consisted of a great variety of rich wines, conveyed, however, in vessels of very inferior magnitude to those in which are transported to Britain the wines of Portugal and the Madeiras : those vesicles were either made of leathern bags,

strongly

strongly sewed together, resembling the modern borachios, or consisted of jars, considerable in size, of which there was a celebrated manufactory established at Athens, for the express purpose of conveying abroad the curious produce of the Grecian vineyards. Their extensive groves of the plant sacred to Minerva, also, enabled them, not less than the Phœnicians, to drive a considerable trade in the purest oil ; to which may be added, the valued honey and wax of Mount Hymettus. The Athenian merchants, also, exported to Asia, covetous of her rarities, all those inimitable productions of her artists in statuary, painting, metallurgy, and every branch of mechanic science, which rendered Greece so renowned ; and, finally, the rich silver mines, with which Attica was stored, afforded her the abundant means of carrying on an extensive traffic in that precious metal with India, a country, whose avarice for that commodity, after twenty centuries, is still as insatiable as ever. The principal imports of the Athenians were grain from Sicily and the adjoining isles, for the support of the numerous inhabitants of their crowded metropolis ; slaves in astonishing multitudes were also constantly imported by a nation, boasting its love of liberty,

to

to work in those mines, to labour at the oar in their numerous galleys, and do that species of servile drudgery which they conceived degrading to *freemen*. From India, their vessels, in return for the silver of Sunium and the copper of Colonos, of which their admirable works in bronze were fabricated, brought the precious gems and spiceries native to the Peninsula; the fine and delicate muslins which the ancients called *Sindones*, and which were transported, across the Gauts, in waggons, from the Eastern coast of that Peninsula, and from Hindostan Proper, to Barygaza; and the sugar, indigo, and dyed cottons, brought down the Indus to Patala; from Persia and Arabia they imported brocades, carpets, and the various rich drugs, perfumes, and cosmetics, of which the unbounded extravagance of the Grecian courtezans, and, we may add, the degenerate effeminacy of the men, called for constant and abundant supplies.

To secure and protect this extensive and valuable commerce, the Athenians constantly maintained, in the three basons of their grand port of Piræus, a very powerful fleet; and the perpetual contests, in which they were engaged with the maritime states around them, failed not to keep alive their martial spirit,
and

and gradually improve, beyond even Phœnician excellence, their naval skill.

After this general view of the Grecian marine and commerce, it is high time that we should attend them to the British coast for that TIN, without which a nation of artists and manufacturers could not possibly carry on their respective occupations. It was absolutely necessary to the chemist, the glazier, the painter, the enameller, the gilder, the potter, and entered largely, as before observed, into several other branches of domestic trade. It formed the ground of that wonderful specimen of the skill of the ancients in engraving and working in metals, the shield of Achilles, described by Homer, from whom we also derive another proof of the early traffic of the Greeks in this commodity; for, in the *Odyssey*, he introduces Minerva, in the disguise of a stranger, affirming herself to be a foreign merchant, going to Temese to explore TIN for the purpose of exchanging it against IRON.* The probable period of the first arrival of the Greeks, as traders in these islands, may be justly inferred from the passage previously cited from Herodotus, in which he

* *Odyssey*, lib. i. verse 182.

confesses

confesses, that the Greeks of his day (and Herodotus flourished about the middle of the fifth century before Christ) were ignorant of those northern extremities of Europe, whence amber and tin were brought, that is, the shores of the Baltic and Britain.* The profound secrecy which the Tyrians and their colonies preserved in regard to the British isles, and their tract hither, has been also noticed, and affords additional testimony that we ought not to assign for that event a period more early than the destruction of Tyre, by Alexander, and the subsequent subversion of the Persian empire; events that roused the dormant ambition of Greece widely to expand both her military and naval fame, and explore the most distant quarters of that globe, to which they aspired to give law.

The term *Cassiterides*, however, which was before observed to be a Greek translation of the Phœnician *Baratanac*, and by which the Scilly islands and the Cornish coast were, in fact, known to the Greek traders, a term used both by Herodotus himself, and Strabo afterwards, undeniably proves, that, though not yet geographically described, or commercially

* See before, p. p. 359, 60.

visited, accident or curiosity must have led Grecian vessels to our coasts before that æra; for how otherwise should the Greeks have given name to an island of which they were in total ignorance? How, on the other hand, could the Greek characters and language have been known, and upon all occasions in which their religious rites and mysterious discipline were not concerned, made use of by the Druids, as is expressly affirmed in Cæsar's Commentaries, unless a long and intimate connection had previously subsisted between the two people? The truth is, there was another channel by which that language might have come into use, at least in the maritime ports of Britain, and that was by way of Massilia, now Marseilles, to which mart we have already observed a *commerce in tin* was anciently carried on, through the heart of France, by British and Gallic merchants, in connection with the Phœnicians, and, on their decline, with the Carthaginians and Greeks. Now Massilia was founded, according to Solinus,* by the Phocæans six hundred years before Christ; and, being a Greek colony, having the Greek manners, talking the Greek

* Solinus, cap. viii.

language, and being the only mart in that part of the Mediterranean for the tin of the Cassiterides, it can excite no wonder if, in the course of so many centuries, with the commodities brought back from Marseilles, the merchants imported also the language of the place, especially as we learn from Strabo, that, in his time, the Gallic inhabitants of Massilia and its neighbourhood were assiduous in cultivating every branch of Greek literature, and were so attached to the Greek language, that not only academies were instituted in that city for teaching it to their sons, but that the merchants wrote their contracts and made their bargains in it.*

It is rather singular, that so profound an adept in British antiquities as Camden should fix the earliest visit of the Greeks to these islands at a period not more remote than about one hundred and sixty years before the arrival of Cæsar, under a certain Phileus' Taurominites, when there is so plain an allusion to this island in that passage alluded to before in Diodorus Siculus, citing Hecataeus, a still more ancient writer, relative to the hyperborean island *opposite Gaul*, whose priests sang

* Strabo, lib. iv. p. 231.

the praises of Apollo upon their harps in circular temples, and that Pytheas, a celebrated astronomer of Marseilles, is reported by Strabo not only to have visited, but to have described, these hyperborean isles. The voyage of this learned Greek, I am of opinion, will give us nearly the exact period when the navigators of that nation first ploughed the British ocean; for, it was about the period of Alexander the Great, when that philosopher is said to have passed through the Straits, and to have sailed to so high a degree of north latitude, as to have seen the sun only for a moment of time sink below the horizon, and then emerge; a fact, which, by astronomical arguments, may be proved possible to have taken place about the 68th degree north, where, in the summer, and when the sun is in Cancer, there is no night.* That Britain, at all events, must have been explored, and the principal commodities trafficked in by its inhabitants have been in great request in Greece, when Polybius flourished, which was above two hundred years before Christ, is evinced by a fact recorded in Strabo, that the same Polybius

* Diodorus Siculus, lib. v. p. 308

had written an express treatise *περι τῶν Βρετανικῶν νησέων καὶ τῆς κασσίτης κατασκευῆς*, concerning the British islands, and the process of making TIN; and this word *Βρετανικῶν*, thus early occurring in a Greek writer, may be considered as an additional testimony of the name being originally derived from the Phœnician Baratanac, or Bretanac, since, from the Phœnician navigators only, could they have obtained any information about it.* It is unfortunate that this treatise of Polybius, which probably contained many curious and interesting particulars relative to these islands and our ancestors, has not descended to posterity. Pliny's assertion, also, ought here to have some weight, that, long before the period in which the Romans visited this country, Britain was famous in Greek monuments.† Whatever truth there may be in that assertion, few vestiges of the Greeks were ever to be met with in these islands, and the arguments which some writers have founded, on the number of Greek words interspersed in the old British dialect, lose their force when we consider their affinity with the Celtic, the com-

* Strabo, lib. iv. in loco cit.

† Plinii Nat. Hist. lib. xvii. cap. 4.

mon parent of both. The Greeks did not come hither to improve our language or correct our taste; they formed no settlements on the coast, nor penetrated into the inland parts of the country; they came hither as mariners and merchants; they took our tin and lead for the Indian market, and gave the Britons articles of cutlery and other wares suited to the wants of a warlike and barbarous people.

The destruction of Tyre and Carthage threw the whole commerce of the Mediterranean into the hands of the Athenians; for, their rivals, the Lacedæmonians, principally studious of military glory in the embattled field, had but little inclination to engage in naval concerns. Their discriminating character, however, of ferocious bravery, added to an insatiable thirst of wealth, did not permit them to be wholly without a navy, which was, for the most part, employed in acts of barbarous aggression on their peaceful neighbours. The nautical genius of the Athenians, however, still soared with a bolder flight, and having a dynasty of Grecian monarchs on the throne of Persia, and also another dynasty on that of Egypt, they soon arrived to that astonishing height of naval splendor, which they

enjoyed for nearly three hundred years, the most brilliant æra in the annals of Asia, at the close of which the power of the Seleucidæ, in Syria, and of the Ptolemies, in Egypt, became extinguished by the SUPERIOR LUSTRE OF THE RISING SUN OF ROME.

END OF VOL. VI.

INDIAN ANTIQUITIES:

VOL. VII.

AND FINAL.

INDIAN ANTIQUITIES:

OR,

DISSERTATIONS

RELATIVE TO

THE ANCIENT GEOGRAPHICAL DIVISIONS,
THE PURE SYSTEM OF PRIMEVAL THEOLOGY,
THE GRAND CODE OF CIVIL LAWS,
THE ORIGINAL FORM OF GOVERNMENT,
THE WIDELY-EXTENDED COMMERCE, AND
THE VARIOUS AND PROFOUND LITERATURE,

OF

HINDOSTAN:

COMPARED, THROUGHOUT, WITH THE
RELIGION, LAWS, GOVERNMENT, AND LITERATURE,

OF

PERSIA, EGYPT, AND GREECE.

THE WHOLE INTENDED AS INTRODUCTORY TO, AND
ILLUSTRATIVE OF

THE HISTORY OF HINDOSTAN,

UPON A COMPREHENSIVE SCALE.

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A

DISSERTATION

ON THE QUANTITY OF
BULLION AND COINED MONEY
IN THE ANCIENT WORLD;

COMPRISING
A SHORT HISTORY OF THE GOLD AND
SILVER MINES OF ASIA,

AND A SURVEY OF
THE IMMENSE TREASURES POSSESSED BY
THE ANCIENT SOVEREIGNS OF INDIA

DISSERTATION, &c.

SECTION I.

HAVILAH, *the Land of Gold,—the ancient Mines of ARABIA and ETHIOPIA,—the Treasures in Bullion of the ancient EGYPTIAN Sovereigns,—the golden SOFALA, the Source of the Wealth of the TYRIANS and SOLOMON,—the former, however, had another abundant Source in the Mines of SPAIN, the PERU and POTOSI of Antiquity.—A Description, from the Prophet EZEKIEL, of the Magnificence of ancient Tyre.—The Sources of the Wealth of the ASSYRIAN or BABYLONIAN Empire investigated, and that Wealth exemplified in the Ornaments of the Temple of BELUS and the DEA SYRIA.—Brief Strictures on coined Money and the DARICS struck at BABYLON.—The Empire of ASIA, and the Current of Wealth which constantly followed it, transferred, by CYRUS, from BABYLON to SUSA.—The immense Wealth in Bullion and coined Money of the ancient PERSIANS,—*

its principal Sources, its own Mines in CAR-MANIA, the mines of LYDIA and THRACE,—and the vast internal Commerce carried on with INDIA.—The Whole fell a Prey to ALEX-ANDER on his Conquest of Persia, and to his Captains after his Decease.—The silver Mines of ATTICA, and the accumulated Treasures preserved in the GRECIAN Temples, considered.—Those Temples, the public Banks of GREECE, and the Priests the Bankers.—A Survey is now taken of the Wealth of ancient INDIA,—the great central Deposit, for many Centuries, of the Bullion both of the Eastern and Western World,—that Bullion principally melted down and formed into Statues of the numerous superior and subordinate Deities of INDIA, as well as to fabricate the splendid Utensils of their Temples.—An Account of the Treasures of that Kind found in those Temples by Sultan MAHMUD, of GAZNA, and other Invaders of HINDOSTAN.—The Author returns from HINDOSTAN to the Consideration of the Wealth obtained by ALEXANDER, and its Dispersion by his Successors, the PTOLEMIES of EGYPT, the SELEUCIDÆ of SYRIA, and the MACEDONIAN Sovereigns.—The whole Wealth of ASIA centred finally among the ROMANS.—A considerable Part dissipated by their profligacy; a still more considerable Portion fell to the lot of the Goths,

Vandals, and other barbarous Nations who plundered ROME; but, by far the most considerable Portion was buried, during the Times of Tyranny and Turbulence, in that Earth from which it originally came.

TO form any adequate idea of the wealth of the ancient world in gold and silver *bullion*, we must turn our eyes to the countries in which mines were first discovered and wrought. Now the region, most early mentioned in history, sacred and profane, as producing gold, is HAVILAH, in the Pentateuch of Moses, and the gold which it produced is said to have been remarkable for its purity. Havilah, which the river Pison watered, is, by the best commentators, asserted to be Arabia; and accordingly we read both in Agatharchides and Strabo, that Arabia anciently abounded in gold in so extraordinary a manner, that its inhabitants would give double the weight of that valuable metal for iron, treble its weight for brass, and ten times its weight for silver.* We are informed by those authors that, in digging the earth in the southern parts of Arabia, they found pieces of gold that needed not the refiner's fire, sometimes as big as olive-stones, and, at others, as big as walnuts;

* Vide Agatharchides Cnid. apud Photium, p. 1370, et etiam Strabonis Geograph. lib. xvi. p. 583.

and that, in particular, through the country of the Deliaë, ran a stream, in whose sands were intermixed pieces of gold of considerable magnitude, while the sand at its mouth appeared as one shining solid mass entirely composed of it, and that the furniture and utensils of their houses, their cups and vessels, were made of it. On this account, as well as its producing such quantites of myrrh, cassia, frankincense, and all the finest drugs and perfumes, that part of Arabia obtained the name of Felix.

Although a considerable portion of this relation may have truth for its basis, yet the greater part is probably exaggerated; for the immemorial trade of the Arabians to the coast of Africa was, doubtless, one source of their thus abounding in those precious metals, which are the chief object of traffic. Of their early engagement in commercial concerns, no stronger testimony need be brought than that which Scripture itself affords; for it was to a caravan of Ishmaelitish (that is, Arabian) merchants, going down to Egypt with spices and balm, that the patriarch Joseph was sold. To Africa, therefore, and particularly to the Ethiopians, we must next direct our course, as a principal and unfailing source of the riches of the ancient world; for, in truth, every province of that vast empire abounded in mines: gold was borne down by torrents from

the mountains, and flowed in the streams of the valley; the Ethiopians anciently had such plenty of it that, to shew their contempt for what excited the envy and admiration of the whole world beside, they are said to have manacled their prisoners taken in war with golden fetters.

There is a curious account given in Diodorus Siculus of the mode after which the Egyptians worked and refined the metal obtained from the mines in the Thebais; for the Lower Egypt, as we before observed, was entirely destitute of mines. They commenced the operation by pounding the ore, and reducing it to grains of the size of millet. It was then reduced to powder under millstones of great weight. The gold-dust, thus finely ground, was spread, as in the process used in respect to the tin ore, detailed above, over a floor of boards, somewhat inclined, and well washed with water, which ran off from the sloping declivity, bearing with it the grosser terrestrial particles that had adhered to it. This washing was several times repeated; and the ore, after having been well rubbed between the hands of the workmen, and thoroughly cleaned by sponges from all remaining filth, was consigned over to those whose business it was to smelt it. These artists deposited the gold dust in earthen vases, mixing

with it, in certain proportions, LEAD, salt, TIN and barley-meal; and these, being closely covered and luted, were placed for five days and nights in a strong refining-furnace. When that period was elapsed, and the metal cooled, they opened the vessels; and examining the gold, found it perfectly pure, and very little diminished in quantity.* This process, of separating and refining the ore of gold, the ancients inform us, was immemorially practised in Egypt, and, in reality, it does not materially differ from that used at the present day; lead, tin, and the labour of repeated fusion, being substituted by the ancients in the room of the more rapid and easy process of the moderns, by means of mercury. In those early periods, however, when as yet both the necessities and the luxuries of life were fewer, gold was frequently found in a state that needed no refining. Without descending into the dark bosom of the mine, virgin gold was frequently to be met with near the surface, as it was discovered in Peru, and is now found in Achem.

Of the immense quantity of gold possessed by the Egyptians, as well as their elegant manufacture of it, in the very early ages to which we allude, abundant testimony may be brought

* See Diod. Sic. p. 184; and Agatharchides apud Photium in loco citato.

from writers, both sacred and profane, and to their combined evidence we shall constantly appeal, when possible, for the truth of our assertions throughout this Dissertation. Diodorus, describing the grand mausoleum of Osymandyas, informs us, that the exact sum of the gold and silver dug from the mines of the Thebais, as inscribed on the walls of that temple, amounted to 3,000,000,000 of minæ, or ninety-six millions of our money ; and mentions, in farther proof of the magnificence of that monarch, the stupendous circle of wrought gold, 365 cubits in circumference, the number of the days of the reformed year of Egypt, which surrounded his tomb.* From a still more authentic record, the Pentateuch of Moses, may be adduced, in evidence, the *golden chain* which Pharoah placed around the neck of Joseph, when he raised him to the dignity of cup-bearer; the *exceeding riches in gold and silver* carried by Abraham out of Egypt ; the multitude of gold and silver vases, and other valuable trinkets, which the Israelites, though in a state of abject servitude, at their exodus, obtained of their wealthy neighbours ; and the bracelets, the earrings, and the clasps of gold, which they afterwards voluntarily offered to Moses for the fabrication of those sumptuous works for the golden

* Diodorus Siculus, lib. i. p. 44.

crown, the table of shew-bread, and the rich chandelier of beaten gold, devoted to the holiest rites of their religion. The greatest mart, however, for this metal on the African coast, was the golden Sofala, which Mr. Bruce has incontestably proved to be the Ophir of Scriptures; and it was probably from those mines that David and Solomon obtained those immense treasures, which animated the former to project, and enabled the latter to complete, the stately Temple of Jerusalem, with all the various golden ornaments used in its public worship. In one voyage only, the ships of Solomon are reported by Josephus to have brought home four hundred and fifty talents of gold; by which the writer meant the talent used at Tyre, most probably current at Jerusalem, and thought by Arbuthnot to be of the same value as that of Attica, amounting to between three and four millions sterling.* If these voyages to Ophir were frequently repeated, there can be but little of hyperbole in that expression which occurs in Scripture, of his making silver to be *at Jerusalem as the stones of the street*; because silver at that time bore a far inferior value to gold than it bears in these days; it being then in the proportion of sixteen to one; whereas, it is now

*Vide Josephi Antiquit. lib vii. and Arbuthnot on Ancient Coins, p. 42.

only as twelve to one. Nor can we wonder at David's having left in his treasury *a hundred thousand talents of gold*, and *a thousand thousand talents of silver*. 1 Chronicles, xxii. though we cannot, in this instance, compute by the Eubœan talent, which in gold, according to the same author, would amount to 547,500,000*l.* and in silver to above 342,000,000*l.* of our money; an enormous and incredible sum, which the treasury of no sovereign or nation on earth ever contained. Dr. Arbuthnot, therefore, judiciously contends that we should calculate by the most ancient Phœnician talent, alluded to by Homer, (and in consequence, called by him *Homeric*,) of value far less considerable. Probably Josephus gives us the true amount of that wealth, when he states the whole at the round sum of 100,000 talents; that is, the Alexandrian talent, most in use at the period of his writing.

Hiero, the Phœnician monarch, we are told, instigated by personal friendship, and his admiration of the consummate wisdom of Solomon, in his favour broke through that jealous reserve which marked all the naval proceedings of that enterprising nation. He not only assisted the Jewish sovereign with his subjects to build a fleet for the express purpose of commerce, but also to navigate that fleet to the destined

port, to the rich source of that wealth which exalted Tyre to her envied pre-eminence in power and splendor over all the cities of the ancient world. If the satellite was thus bright in riches and in glory, with what surpassing, with what unequalled, lustre must the primary orb have been invested ; for, it was not only from the golden Sofala, and the ports of Africa, that she obtained this infinite supply of bullion, but we have shewn that, in the mines of the Pyrenæan mountains, at once the PERU and POTOSI of antiquity, she found an additional and never-failing spring of overflowing treasure. I have already, in the preceding Dissertation, given a very ample account of their abundant produce in the times of the Phœnicians trading thither ; but, when they ceased to be so abundantly productive of ore, it is impossible to ascertain. I need only add to that account, that, in the time of Strabo, the Romans kept forty thousand men constantly employed in those mines ; and that they produced to them twenty-five thousand drachmas a day.* Full credit, therefore, may be given to the testimonies which the records of all nations bear to the profusion of gold and gems worn by the inhabitants, and displayed in the temples and palaces, of Tyre. Of her astonishing wealth, and the rich species

* Strabo, lib vi. p. 379.

of manufactures in which she dealt, no more impressive evidence from profane authors need be adduced than the splendid donation sent by her to the temple of the Tyrian Hercules at Gades, and mentioned in the preceding pages; the golden belt of Teucer, and the golden olive of Pygmalion, exquisitely wrought, bearing smaragdine fruit; that is, berries of emerald, representing olives in the utmost perfection. This testimony of Apollonius, in Philostratus, who visited the temple of Gades, in the first century of the Christian æra, added to that of Herodotus, previously cited, concerning the dazzling ornaments of her own principal temple, seen by that historian many centuries before, the two lofty pillars of gold and emerald, which illuminated the whole dome by their reflected splendor, are fully confirmed by the decided voice of Scripture itself; not only in respect to their elegant work in gold and ivory in the palaces of Solomon and the temple of Jerusalem, but more particularly and minutely in the following animated apostrophe, which is too intimately connected with many of the subjects discussed in this volume, and exhibits too interesting a detail of the splendor of an ancient commercial metropolis, to be omitted; for in truth, it was the gold of Ophir and the silver of Spain that formed the basis of all her magnificence.

“ O Tyre,” exclaims the prophet, “ thou hast said in thyself, I am a city of perfect beauty. Thy neighbours, who built thee, have forgot nothing to embellish thee. They have made the hull and the diverse stories of thy ships of the fir-trees of Senir. They have taken a cedar from Lebanon, to make thee a mast. They have polished the oaks of Bashan, to make thine oars. They have employed the ivory of the Indies, to make benches for thy rowers; and that which comes from Italy, to make thy chambers. Fine linen, with broidered work from Egypt, was that which thou spreadest forth to be thy sail. Hyacinth and purple, from the isles of Elishah, have made thy flag. The inhabitants of Sidon and Arvad were thy rowers; and thy wise men, O Tyre, became thy pilots. All the ships of the sea, and all their mariners, occupied thy commerce and thy merchandise. The Carthaginians trafficked with thee, and filled thy fairs with silver, with TIN, and LEAD. Javan, Tubal, and Meshech, were also thy merchants, and brought to thy people slaves, and vessels of brass. They of Togormah traded in thy fairs with horses and mules. The Children of Dedan trafficked with thee. Thy commerce extended to many islands, and they gave thee, in exchange for thy merchandises, magnificent carpets, ivory, and ebony. The Syrians were

thy merchants, because of the multitude of thy works : they exposed to sale in thy fairs pearls, and purple, embroidered works of byssus, silk, and all sorts of precious merchandise. The people of Judah and of Israel were also thy merchants, they traded in thy markets pure wheat and balm, honey, oil, and rosin. Damascus, in exchange for thy wares, so varied and so different brought thee great riches, excellent wine, and wool of a lively and shining colour. Dan, Greece, and Mosel, traded in thy markets, iron works, and myrrh, and calamus. Arabia, and the princes of Kedar, were also thy merchants ; they brought thee their lambs, and rams, and goats. Shebah and Ramah came also to traffic with thee ; they traded in thy markets the most exquisite perfumes, precious stones, and gold. Thine were the most remarkable of all the ships of the sea. Thy rowers conducted thee upon the great waters. Thou hast been loaded with riches and glory : never any city was like thee. Thy commerce enriched the nations, and the kings of the earth.”*

It should here be observed, that the prophet Ezekiel, to whom we are indebted for this valuable picture of the grandeur of the Phœnician metropolis, flourished nearly 600 years before Christ, when Tyre was in the zenith of that

* Ezekiel, chap. xxvii. and xxviii.

glory, which shortly after bowed its head before the monarch of Assyria. To Assyria, therefore, and principally to Babylon, the mighty capital of the greatest empire the sun ever beheld, it is now necessary that I should direct the attention of the reader during our farther investigation of the curious subject before us, the treasures of gold and silver bullion amassed in the ancient world.

Assyria had no gold or silver mines of her own; but, being the central region of that part of Asia in which commerce ever most vigorously flourished, she absorbed, as in a vast vortex, the wealth in this article, in which she so super-eminently abounded. We are astonished, in the infancy of mankind, and in the dawn of science, to find works executed at once so costly and so stupendous. Those fabricated in the precious metals alluded to, alone form the object of our present inquiry; and here, in the great temple of Belus, built by Semiramis, we find three prodigious statues, not of *cast*, for they are expressly said to have been of *beaten*, gold, representing Jupiter, the father of all, Juno the queen of heaven, and Rhea, the universal mother. The statue of Jupiter appeared erect, and in a walking attitude; it was forty feet in height, and weighed a thousand Babylonian talents. The statue of Rhea also weighed the

same number of talents, but was sculptured sitting on a throne of massy gold, with two lions standing before her, as guardians of the statue, accompanied with two huge serpents in silver, that weighed each thirty talents. The statue of Juno was in an erect posture, and weighed eight hundred talents: her right hand grasped a serpent by the head, and her left a golden sceptre, incrustated with gems. Before these three colossal figures stood an altar of beaten gold, forty feet in length, fifteen in breadth, and of the weight of five hundred talents. On this altar stood two vast flagons weighing each thirty talents; two censers for incense, probably kept continually burning, each weighing five hundred talents; and, finally, three vessels for the consecrated wine, of which the largest, that assigned to Jupiter, weighed three hundred talents, and those to Juno and Rhea six hundred talents.* Such is the relation given by Diodorus of the ornamental decorations of this superb fane, and, though borrowed from Ctesias, may probably be, for the most part, true. It certainly is in unison with the magnificent taste of the times, and might easily have been accomplished by the immense sums that flowed, in a golden inundation, into that capital from Arabia and all the adjoining provinces subject to the crown of Assyria.

* Vide Diod. Sic. lib. ii. p. 98.

If this relation, however, should appear wholly incredible, let us appeal to the authority of Holy Writ for an account of the exhibition of Assyrian wealth, scarcely less surprising ; and this display we find in the colossal image of gold which Nebuchadnezzar, after the plunder of Jerusalem, and probably from the superb spoils of its temple and royal palace, erected to his god Belus, that is, *the Sun*, whose ray matures the growing ore, the SUN equally adored with similar rites and by the same appellation, in ancient Britain and ancient Babylon, in the extensive plain of Dura. This statue, to form which was so basely prostituted the enormous aggregate of wealth heaped up by David and Solomon for a nobler purpose, and a far more refulgent deity, was sixty cubits in height, which therefore vastly exceeds that erected to Jupiter Belus by Semiramis, sixty cubits being nearly equal to ninety feet ; it was also six cubits in breadth ; and the whole was of beaten gold. Now Dr. Prideaux computes the weight in gold of the former statue, viz. one thousand talents, to be equal to three millions and a half sterling, and the value of that of Nebuchadnezzar rises consequently in proportion to its additional height.* That author, fearful of the apparent exaggeration, would allow only forty cubits to the statue, and twenty for the pedestal ;

* Prideaux's Connections, vol. i. p. 100.

but this is contrary to the express words of Scripture; and the dimensions will not appear incredible to those who consider that this colossus was probably intended as an exhibition of the hoarded wealth of the treasury of Babylon, and consisted of the golden spoils of Egypt, Syria, and Palestine, recently subdued by this powerful and ostentatious monarch. The whole or, at least, far the greater part, of this wealth, afterwards, at the conquest of Babylon by Cyrus, fell into the hands of the Persian sovereigns, who, transferring the seat of empire and its accumulated treasures to Susa, invite our steps to the new metropolis.

Although, as has been before observed, there are at present no mines of gold or silver open in Persia, there are, according to Chardin, evident remains of those that have been wrought in ancient times, and were either exhausted, or stopt for want of timber; an article in which that country is, in many parts, miserably deficient, especially in the *desert Carmania*, where those remains are most visible. From its being so mountainous a region, as well as so productive of sulphur and copper, in the neighbourhood of which gold is generally found, there can be no doubt of its still containing such mines, were a spirit of active industry set in motion to make the proper search: or,

rather, were not the sinews of that industry palsied by the iron hand of despotism.

For an abundant supply, however, of gold and silver, during the period that elapsed from Cyrus to the death of the last Darius, no internal resources were necessary to the Persians, since the whole wealth of Egypt and Asia continued to flow, by various channels, into that empire. In the first place, all the produce of the mines of Lydia, that made Croesus, next to the sovereigns of Persia and India, (India, at that time but little known to the nations of Asia situated to the west of the Seendhu,) the richest monarch of the East, at the conquest of Sardis, fell into the hands of Cyrus: and, though we have no exact account of the particulars of that wealth, we are able to form some idea of it, from the magnificent presents which Croesus is affirmed, by Herodotus, to have repeatedly sent to Delphos, and the grand holocaust, consisting of beds of gold and silver, ornamental vessels of the same precious metals, robes of purple, silken carpets, and other rich furniture, which he caused to be publicly burned in one enormous pile, in order to render that oracle propitious to his future undertakings; —a holocaust into which the wealthiest of the voluptuous citizens of Sardis threw also their most costly furniture, and in the very ashes of

which was found so much melted gold, that, according to the same historian, out of the splendid metallic mass were formed one hundred and seventeen golden tiles; those of the greatest magnitude, six spans in length; those of the smallest, three spans; but all one span in thickness.* There cannot, indeed, be adduced a more convincing proof of the unequalled wealth of the Lydians, nor of the transmutative power of ACTIVE WIDELY-DIFFUSED commerce, than the astonishing relation which we find in Herodotus, of the wealth of Pythias, a merchant of that country, who was enabled by that commerce, in after ages, when Lydia flourished in meridian splendor, under the powerful protection of the imperial dynasties of Persia, to present Darius, as we have before had occasion to remark, with a plane-tree and a vine of wrought gold; and, as he had thus shewn his munificence to one sovereign, so did he not less display hospitality blended with munificence to the other; for, when Xerxes marched with his innumerable army against Greece, the same Pythias not only entertained, at Celænæ, in Phrygia, the whole of this vast army, but made him a proffer, towards the charges of carrying on that war, of two thousand talents of silver, and three millions nine

* See Herodotus, lib. i. p. 47, et seq.

hundred and ninety-three thousand gold Darics. With which noble act of generosity Xerxes was so charmed, that instead of accepting the proffer, he ordered seven thousand additional Darics to be given to Pythias from the royal treasury, to make up the round sum of four millions in gold.

In the second place, it should be remembered that the whole amassed wealth of Egypt felt the plundering hand of Cambyzes, whose vindictive fury led him not merely to plunder, but to destroy, the temples of Egypt; and that, at the burning of that of Thebes, the remains of the wealth saved from the flames amounted to three hundred talents of gold and two thousand three hundred talents of silver: but the richest article among the spoils of that temple was the stupendous circle of gold, inscribed with the zodiacal characters and astronomical figures, that encircled the sepulchre of Osymandes. At Memphis, also, then the capital of the empire, he obtained, in the ancient palace of the Pharaohs, such an immense treasure in bullion, and ornamental vases, and statues of gold and silver, representing gods and deified men, as perhaps no palace ever before contained; and many of these statues were restored, some ages afterwards, to the transported Egyptians, by Ptolemy, the son of Philadelphus, when his

armies had vanquished Antiochus, the third sovereign of the dynasty of the Seleucidæ, and on whom, in consequence, the Egyptians bestowed the illustrious title of *Euergetes*, or the *Beneficent*. Such were the sources from which, independent of its flourishing commerce, the Persian emperors drew that enormous quantity of treasure which was necessary to sustain the unparalleled magnificence of their courts of Susa and Persepolis, and which in the end, was doomed to reward the military ardour of the invading Greeks.

Previously, however, to our following Alexander in the rapid career of his triumphs over the humbled sovereign of Persia, we must digress a little from our subject, which is properly the *bullion* of the ancients, to one not less important and interesting, their *coined money*, which, according to the general judgment of medallic writers, was not in existence before the conquest of Babylon by Cyrus ; though others, on the credit of Herodotus, fix the first coinage in Asia to the very early periods of the Lydian empire. In the course of the following strictures I may possibly be able to produce arguments for supposing money to have been coined and current in eras still more remote.

ON THE ORIGIN AND ANTIQUITY OF COINED
MONEY.

THE first commerce of mankind was carried on without the medium of any money, stamped or unstamped; it simply consisted in the barter of one commodity for another, according to the respective wants of the parties concerned in it. The greater or less urgency of the want, in general, fixed the higher or inferior price of the commodity; but the eye was often the sole judge, and quantity the chief rule of determining. There is a curious account in Cosmas, called Indicopleustes, of the ancient mode of carrying on traffic between the inhabitants of Axuma, the capital of Æthiopia, and the natives of Barbaria, a region of Africa near the sea-coast, where were gold mines, which will give us a tolerable idea of this primitive kind of commerce. Every other year, says he, a caravan of merchants, to the number of five hundred, sets off from Axuma to traffic with the Barbarians for gold. They carry with them cattle, salt, and iron, to barter for that gold. Upon their arrival at the mines, they encamp on a particular spot, and expose their cattle,

with the salt and iron, to the view of the natives. The Barbarians approach the mart, bringing with them small ingots of gold ; and, after surveying the articles exposed to sale, place on or near the animal, salt, or iron, which they wished to purchase, one or more of the ingots, and then retire to a place at some distance. The proprietor of the article, if he thought the gold sufficient, took it up and went away ; and the purchaser also secured and carried away the commodity he desired. If the gold was not deemed sufficient, the Axumite let it remain affixed to the article, till either more ingots were added to satisfy the full demand for it, or the first offered taken away. Their total ignorance of each other's language rendered this silent mode necessary, and the whole business terminated in five days, when the Axumite caravan departed homewards, a journey of not less than six months.* In these compacts, however, the eye must often have been deceived ; and the bulk of an article was not always the proper criterion of its worth, since some articles of great magnitude were of trifling value, while others of inferior bulk were in the highest estimation. It was also impossible, in many instances, to divide, without spoiling, the commodity in request, according

* Vide Cosmas Indic. page 138, et seq.

to the proportion suited to the mutual wants and ability of the buyer and seller. It became absolutely necessary, therefore, to have recourse to some general medium in commerce, and that medium varied according to the produce of the country in which it was carried on. In some it consisted of shells, in others of cocoa-nuts, in others of leather or paper; so that, if the reader will excuse the joke, we see a *paper-currency* was established in the earliest ages. Such was the first rude money, a word which explains itself, being derived to us from *moneta*, since it advised one of the price of an article.

The *cowries*, or white shells, at this day used as currency in India, and the small Siamese coins, in form resembling *nuts*, are, in all probability, relics of this ancient usage before metals were so generally adopted as the representative signs of the value of articles of commerce. It was the beauty, firmness, and durability, of metals, that occasioned them to be so adopted, but it was many ages before they were stamped with any impression descriptive of their weight or value. It was the custom of the merchant, as in fact is still practised in China, to carry a certain portion of gold or silver into the market, and, having previously furnished himself with proper instruments and scales, he cut off and weighed out, before the vender of the

commodity wanted, as many pieces as were proportioned to the purchase of it. The great inconvenience and delay occasioned by this mode of carrying on commerce, soon induced the merchant to bring with him pieces of money, already portioned out, of different weights and value, and stamped with the marks necessary to distinguish them. There is very great reason to believe that the earliest coins struck were used both as weights and money; and indeed this circumstance is in part proved by the very names of certain of the Greek and Roman coins: thus the Attic *mina* and the Roman *libra* equally signify a pound; and the *στατηρ* of the Greeks, so called from *weighing*, is decisive as to this point. The Jewish shekel was also a weight as well as a coin, three thousand shekels, according to Arbuthnot, being equal in weight and value to one talent.* This is the oldest coin of which we any where read; for, it occurs in Genesis, ch. xxiii. v. 16, and exhibits direct evidence against those who date the first coinage of money so low as the time of Croesus or Darius; it being there expressly said, that *Abraham weighed to Ephron four hundred shekels of silver, current money with the merchant.*

Having considered the origin and high antiquity of coined money, we proceed to consider

* Arbuthnot on Ancient Coins, p. 39.

the *stamp* or *impression* which the first money bore. The primitive race of men being shepherds, and their wealth consisting in their cattle, in which Abraham is said to have been rich, when, for greater convenience, metals were substituted for the commodity itself, it was natural for the representative sign to bear impressed the object which it represented; and thus accordingly the earliest coins were stamped with the figure of an OX or SHEEP. For proof that they actually did thus impress them, we can again appeal to the high authority of Scripture; for there we are informed that Jacob bought a parcel of a field for an hundred pieces of money. Genesis, ch. xxxiii. v. 19 The original Hebrew term, translated *pieces of money*, is KESITOTH, which signifies LAMBS, with the figure of which the metal was doubtless stamped. We have a second instance of this practice in the ancient Greek coin, denominated Βας, the *ox*; and we meet with a third in the old brass coins of Rome, (whence I before observed the public treasury was called *ærarium*.) stamped, before that city began to use gold and silver money, with the figure of a *sheep*, whence the Latin name *pecunia*. *Signatum est notis pecudum; unde et pecunia appellata.** In process of time, when empires were formed, and men crowded into cities, coins came to be

* Plinii Nat. Hist. lib. xxxiii. cap. 3.

impressed with different devices, allusive either to the history of its founder, some remarkable event in the history of the nation, their accidental situation, or the predominant devotion of the country. Thus the shekel of the Jews had Aaron's rod budding, with a smoking censer. The Tyrians had their *Petræ Ambrosiæ*, and serpentine emblems, of which some curious examples may be seen in the plate of coins engraved in Vol. vi. The Athenian coins bore impressed an owl, and Pallas. The maritime race, who inhabited the Peloponnesus, had a *testudo*, or shell, as their symbol; the Persians, practised in the use of the bow, an archer, which is the constant device on the Darics; the Thessalians, a horse; the Byzantines, situated on the Thracian Bosphorus, a dolphin twisted about a trident.

Although I have combated the idea of the Lydian or Persian money being the first that was ever coined, I am induced, by the general and united attestation of ancient classical writers, perfectly to acquiesce in the judgment of medallists, that the coins of those nations were the first stamped with the effigies of the reigning prince; and the priority of coining money is, with great propriety and probability, assigned to Cræsus, the wealthiest monarch of Asia, when his capital was invaded and taken by

Cyrus, who forbore to plunder that rich city, on the express condition, that both the monarch and the inhabitants should, without reserve, bring forth their whole amassed wealth, which must have amounted to a prodigious and almost incalculable sum. This conquest gave the Persians, who were before an indigent people, without any gold or silver currency, and pent up within the contracted limits of the province properly called Persia, not only the possession of a vast treasure, but of a wide and rich territory, and laid the foundation of their future grandeur. The coined moneys of Cræsus, from the effigies of that monarch being impressed upon them, were called Cræsei; but, as it seemed improper that they should continue current with that impression, after the conquest of Cræsus and the subjugation of his kingdom, Darius, that is, Darius the son of Cyaxares, and the first of that name, under whom Cyrus then acted only as general-in-chief of the Persians and Medes, though afterwards their sovereign; that Darius, I say, it is conjectured, recoin'd the Cræsei with his own effigies, though he did not think it prudent to alter either the weight or value of a coin, then so generally diffused through Asia as the medium of commercial transactions. Thus recoin'd, and stamped with his own head, they henceforth took the name of their new

master, and from him were called *Δαρειμοί*, DARICS, and are mentioned in Scripture, in periods posterior to the Babylonish captivity, by the name of ADARKONIM. None of the Crœsei, that we know of, have reached posterity, unless that very ancient gold coin, mentioned by Mr. Pinkerton, in his concise, but elegant and judicious, *Essay on Medals*, a coin presenting to view “ a man, kneeling, with a fish held out in his left hand, and a sword, depending, in his right,”* should prove to be one. It is to be seen, with several other old Persian coins, in the late Dr. Hunter’s capital collection; and the writer urges the possibility of its being one of the staters of Crœsus, not only from its having the rude globosity of early antiquity, and the indented marks of the first coinages, which were made by ponderous strokes of the hammer, upon one side; but because it bears the evident symbol of a maritime country, such as Lydia was, on the other. It is of very pale gold; and is about the usual weight of those staters, which was four drachmas.

When afterwards the same Darius, by the valour of Cyrus, became possessed of Babylon, and found there that immense quantity of bullion, which has been before described, he caused the greatest part of it to be melted down and

* Pinkerton, vol. i. p. 286.

coined into Darics. On these coins, the impression, on one side, was an archer, clothed in a long Persian tunic, and crowned with a spiked crown, with a bow grasped by his left hand, and an arrow in his right : on the other side, the effigies of the monarch himself. The pleasantry of Agesilaus, at a succeeding period, on the subject of these Darics, is well known ; who, when compelled to retire from an invasion of Persia, by the force of Persian gold, that had bribed Sparta over to its interest, declared he had been defeated by thirty thousand *archers*. Very few of these coins have descended to our times ; because the very same reasons which operated on the mind of Darius, to convert the Lydian into Persian coins, afterwards incited Alexander to melt down the Darics for the coinage that distinguished the commencement of his new and still greater empire. Of the magnitude, however, of this famous coinage by Darius, we may form some idea, from the great number already stated to have been in the possession of one man, I mean Pythias, so often alluded to, who offered his sovereign, towards carrying on the Grecian war, a sum amounting to nearly four millions of these Darics ; and what vast additional sums, still remained in the royal coffers will shortly be evident to the reader, when I return to the account of the plunder

of the Persian palaces and temples by the Macedonian invader. All the real Darics are of extremely pale gold, of the purest kind known in those days, when the art of refining metals was not advanced to any high degree of perfection; I say all the *real Darics*, for the silver coins that generally pass under that name, as bearing similar impressions, though Persian, are of a far later coinage. The Darics, according to Dr. Bernard, weighed two grains more than one of our guineas; but, containing far less alloy, may be considered as worth twenty-five shillings English.*

The next celebrated coin in antiquity is the Philippi of gold, stamped with the effigies of the father of Alexander the Great, when, as was before related, he conquered Crenides, on the confines of Thrace, and conferred his name on the gold coin, or χρυσος, of the Greeks; it was a didrachm, of the value of twenty silver drachmæ, and, allowing for the difference in the value of gold in those times and the present, may be intrinsically worth one pound of our money. Alexander, content with the full tide of glory which he was convinced would attend his name and actions in future ages, seems to have declined the celebrity which arises from multiplying the regal effigies upon

* Dr. Bernard de Ponderibus, p. 171.

coins ; and, soon after his exaltation to the throne of Macedon, forbad the impression of his own portrait to be used at the mint. This was so strictly observed, that we have only one small silver coin, a hemidrachm, struck during his whole reign, (which indeed was but short,) bearing his effigies, and that is an unique in Dr. Hunter's collection. It exhibits a very juvenile aspect ; and the reverse is a man on horseback, the usual ornament of Macedonian coins. His gold coins exhibit, on one side, a head of Minerva ; and, on the other, a Victory, standing : his silver, a head of young Hercules, and the reverse, Jupiter sitting :—a collection of symbols that doubtless flattered the pride of the victorious son of Jove, far more than the diffusion of the impression of the head of a mere man. What pride or caprice, however, prevented being done by himself, was abundantly accomplished by his successors at Macedon, and his admirers elsewhere ; so that posterity are in no want of genuine similitudes of that wonderful man. The great generals, who partitioned out among themselves his mighty empire, happily did not follow his example ; and, in the series of their respective coins, the medallist finds an astonishing and delightful proof of the perfection, in this line, to which the Grecian artists gradually arrived. It is beyond

my purpose, which was only to present the reader with a general view of the subject of ancient coins, to enter farther into the examination of their merits and history. The medallic writers are numerous, and to the English reader, who may choose to proceed more largely in the investigation, Mr. Pinkerton's book will prove a very useful guide.—It is necessary that we now return to survey the utter subversion of the Persian empire, and the plunder of all its immense treasures, by a comparative handful of determined Greek soldiers : I shall, first, faithfully sketch out the picture of that grandeur and those treasures : I shall then, to use the language of the medallist, exhibit the *reverse* : —a dreadful reverse ! unequalled in the annals of Asia and the history of man.

Never was there a more sudden change effected in the manners of a nation than that which took place in Persia, after the conquest of Babylon. The honourable indigence, and the strict regimen and laborious exercises, in which from infancy the Persians had been trained, were now succeeded by an ostentatious magnificence, a luxurious diet, and an indolent effeminacy. With the wealth, they caught the habits of the Lydians, and wallowed in all that unbounded voluptuousness for which the former are branded in the page of history. During

the life of Cyrus, indeed, his example and authority kept up in the army some remains of the ancient discipline; but the princes and nobles delighted rather to follow the example of Croesus, and were plunged in excesses of every kind. The successors of Cyrus on the throne of Persia seemed to think the dignity of that throne was better supported by splendor than virtue, and aimed to secure the abject obedience of their subjects, by dazzling them with a glory that seemed more than human; so devoted indeed were they to the shameless gratification, at any price, of their licentious and stimulated appetites, and so far had they exhausted every source of known terrestrial enjoyment, that one of them, it is well known, was not ashamed, by a public edict, to offer a splendid reward to any person who should invent a new pleasure.

Ancient writers speak with rapture of the beauty of imperial Susa, and the magnificence of its sumptuous palace, so highly distinguished, as to have been the residence, during three months of the year, that is, during the spring season, of the great Shah-in-Shah, as Ecbatana was during the summer. The walls and ceilings of this palace were overlaid with gold, ivory, and amber, exhibiting the noblest designs wrought in the most exquisite taste. Its lofty throne of pure gold was raised on pillars reful-

gent with jewels of the richest lustre. The monarch's bed, also of pure gold, we have already noticed, as shaded with the golden plane-tree and vine presented by Pythias, on whose branches hung clusters of emeralds and rubies. He reposed his head on a casket containing five thousand talents of gold, which was called *the king's bolster*; and his feet rested on another, containing three thousand talents of the same metal. Every province of his vast empire daily furnished one dish, loaded with the richest rarities produced in it. He drank no water, but the pure cold wave of the Choaspes, carried with him, in silver vessels, whithersoever he went. His bread was made of the finest wheat of Phrygia; Egypt supplied him with salt; the rich high-flavoured wines of Damascus alone sparkled in his cup; the softest, sweetest, melodies soothed him during the banquet; and the loveliest women of Asia beguiled his hours of domestic retirement. When he marched to battle, the pomp of the procession was to the last degree splendid and solemn; and has been minutely described by Herodotus, Arrian, and Curtius; of whose various relations the following is the result:

It commenced the moment the sun appeared above the horizon. At that instant, a trumpet, sounding from the king's pavilion, proclaimed

the appearance of its beam, and a golden image of its orb, inclosed in a circle of crystal, was displayed on high in the front of that pavilion. The Persian banner, which was a golden eagle, the eagle of the sun, with its wings expanded, being also elevated, a body of Magi, carrying on silver altars the sacred and eternal fire, believed to have descended from heaven, advanced first. Then followed another band of Magi, chanting hymns in honour of the sun; and 365 youths, to represent the number of the days of the reformed year, clothed in flame-coloured vests, and bearing a golden rod, the symbol of his ray. After these, marched a large body of horse and men, bearing spears with their points downward. Ten consecrated horses, of surpassing magnitude, bred on the Nicæan plains, and caparisoned with furniture that glittered all over with gold and gems, preceded the chariot of the sun, (for such it was, though called by Herodotus that of Jupiter,) empty and drawn by eight white horses, the equerries attending them clothed in white vests, and also bearing in their hands golden wands. Next came the Persian band, called *immortal*, ten thousand in number, all wearing collars of pure gold, and arrayed in robes of gold tissue. Next came the male relations of the sovereign, habited in purple vests, fringed with precious

stones and pearl. The king followed immediately after, in a chariot drawn by Nicæan horses, a living mine of gold and rubies, and darting from his own person a glory scarcely less resplendent than that of the sun, whom he represented. He appeared seated on a throne, elevated above the chariot that bore him, and sustained by colossal figures of the Genii of the Persian mythology, cast in pure gold. The chariot was of gold, and from the centre of the beam, that glittered with jewels, rose two statues of pure gold, each a cubit in height, the one representing PEACE, the other WAR; over whose heads a golden eagle, the banner of Persia, spread its wings, as if to sanction the choice of the nations, whether hostile or pacific. Two thousand chosen horse, the king's body-guard, followed the royal car; succeeded by twenty thousand foot, armed with javelins, decked with pomegranates of gold and silver. Ten thousand horse brought up the rear of the army of native Persians. The rest of the innumerable host followed at a distance, in separate divisions, according to the nations which they respectively represented.

The citadel of Susa is said to have been the great treasure-house of the kingdom: in it the ancient records of the Persian empire, from its foundation, were preserved. We are informed, by Diodorus, that Alexander carried away from

this plundered capital no less than nine thousand talents of coined gold, and of gold and silver bullion forty thousand talents.* It must, however, have been in the more ancient periods of the empire that Susa was the chief treasury ; because, great as this sum appears, it is comparatively trifling to what, according to the same author, that insatiable plunderer of the wealth of Asia found at Persepolis, which amounted to such an enormous sum, that besides three thousand camels which were loaded with it, all the adjoining countries were drained of their mules, asses, and other beasts of burthen, to convey it away from a city, on which he wreaked his particular and unrelenting vengeance, in return for the impolitic burning of the Grecian temples by Xerxes.† The total aggregate, in bullion, obtained at Persepolis, Diodorus states at one hundred and twenty thousand talents of gold, independent of the precious gems, the costly furniture, the vessels of crystal and agate, the vests of Tyrian purple and gold embroidery, found in profusion in the houses of the Persian nobles and merchants. At the taking of Damascus, after the battle of Issus, he found in the royal coffers two thousand six hundred talents, in coined money, and five hundred in

* Diodorus Siculus, lib. xviii. cap. 66.

† Ibid. lib. xvii. p. 63.

bullion, and with the other treasures, taken in that wealthy city, loaded seven thousand mules. Ten thousand talents, at one time, and thirty thousand at another, were the sums offered by Darius to Alexander, as the ransom of his captive wife and daughters. The battle of Arbela put him in possession of all the costly utensils and splendid equipages of Darius, with four thousand talents in money. In Pasargada he found six thousand talents; and, in the royal city of Ecbatana, according to Strabo,* no less than one hundred and eighty thousand talents.

Of these immense sums heaped up together by Alexander in his rapid conquest of Persia, he was by no means sparing in the use; his largesses to his soldiers at different times were great beyond calculation; and, in his sumptuous and repeated banquets, he aimed to display the magnificence rather of a god than a man. Towards his friends and favourites, too, he manifested his liberality in a manner equally unparalleled, since he presented Aristotle, his preceptor, for his natural history of animals, with no less a sum than eight hundred talents, or one hundred and fifty-five thousand pounds;† and on the funeral only of his beloved Hephæstion,

* Strabonis Geograph. lib. xv. p. 741.

† Athenæus, lib. xii. .

he expended twelve thousand talents, considerably above two millions sterling.* Having transported all these myriads to Babylon, which city there is every reason to think he meant to make the metropolis of his new empire, THE WORLD, as Alexandria was to be the staple of its commerce, this mighty conqueror there perished, the victim of intemperance. Not content with the laurels obtained by the subjugation of Asia, and the honour of having rewarded Aristotle, the invincible Alexander must ravish from his comrades the chaplet of the bacchanal; and the capacious Herculean goblet of two CHOÆ,† consigned him in the bloom of life and glory to that grave into which his cruel ambition had recently precipitated the unfortunate Darius. After his decease, independent of gold and silver statues, vases, and other ornamental furniture of the palace of Babylon, in the treasury of that city were found one hundred thousand talents, a sum exceeding nineteen millions sterling, but which will excite no wonder in the reader's mind, when he is informed, from Justin, that the total amount of the tribute annually arising from his conquest of Persia, India, and the other empires of Asia and

* Diod. Sic. lib. xvii.

† The χοῦς was an Athenian measure, holding seven pints, frequently used at festivals, and drank off by way of bravado.

Africa, amounted to three hundred thousand talents, or upwards of fifty-eight millions of our money.* What became of this enormous treasure, the greatest the sun ever shone upon, will presently be unfolded, when we display new empires bursting from the ashes of this costly phoenix, consumed by its own blaze; and exhibit Egypt, Syria, and Macedon, glittering in the spoils of the Higher Asia. But before I introduce my readers once more to the splendid courts of the Ptolemies, the Seleucidæ, and the new Macedonian dynasty, some important collateral events must be recapitulated, and the field of the gorgeous India more minutely explored.

In enumerating the ancient mines, I ought not to have omitted more particularly mentioning, as not the least celebrated, the silver mines of Attica, and the golden mines of Thrace. The annual produce of the mines of Sunium I do not find precisely stated, though that it was very considerable may be collected from this circumstance, that, whereas in Asia, according to Herodotus, the proportion of gold to silver was as one to thirteen; at Athens, according to Plato, it was but as one to twelve.† Of the produce of the Thracian mines, re-

* Justin Hist. lib. xiii. p. 147.

† See Herodotus, lib. iii. and Plato in Dialog. *Hipparchus*.

opened, after the conquest of Thrace by Philip, king of Macedon, we can state, with certainty, from Diodorus, that it amounted to one thousand gold talents annually, or near three millions of our money, which went, by hereditary claim, additionally to swell the treasures of the great Alexander.* The principal hoards, however, of treasure, both in bullion and coined money, among the Greeks, we know to have been in their temples, which were crowded with presents of immense value, brought by the superstitious from every part of Greece. These temples were considered as national banks, and the priests officiated as bankers; not always indeed the most honest, as was once proved at Athens, where the state-treasurers, having expended or embezzled the public money, had the audacity to set fire to that part of the temple of Minerva where the treasure was contained, by which sacrilegious act that magnificent fane was near being wholly consumed. Their purpose, however, was fully answered, since the registers of the temple were reported to have perished with the treasures, and all responsibility precluded.

The temple, just mentioned, the superb fane of Jupiter Olympius, at Elis, and that of Apollo, at Delphi, were the principal of those sacred

* Diodorus Siculus, lib. iii. p. 249.

depositories. The priests, at all times, concealed the total sum of the treasures lodged in them with too much caution for us to know the amount, yet, when the Phocenses, urged to despair by the exactions of the Thebans, seized on the treasures of Delphi, they amounted to ten thousand talents, above two millions two hundred and fifty thousand pounds sterling;* and probably that but a small portion of what holy perfidy had previously secured. Those deposited at the great temple of Ephesus, considered through all ages as inviolable, probably far exceeded those of the three last-mentioned. After all, whatever credit may be due to the piety of mankind in devoting their gold and silver to the service of the deity, it was extremely impolitic to make their temples, as was the custom through all antiquity, the receptacles of such unbounded wealth; since it served only to spirit up every desperate invader of Asia to acts of the most nefarious plunder and sacrilege, as was dreadfully and repeatedly experienced by the miserable race of Palestine. Violent and reiterated as were the outrages committed in the Holy Land in the successive irruptions of their rapacious neighbours, they were by no means so extensive and ruinous as the desolation which the sanguinary fury of

* Diodorus Siculus, lib. xvi. cap. 76.

Mahommedan superstition, hurled with its wasteful hand over the fertile provinces of Hindostan, and through her august pagodas ; pagodas overflowing for ages with the accumulated wealth of the whole western world.

I have already shewn, that it was to the shores of India that the great current of the treasures in gold and silver, produced by the mines of Spain, flowed, to be there swallowed up in a vortex that never regurgitated the shining spoil. Imagination is scarcely able to conceive the magnitude of the amount, in bullion and coined money, amassed during so many centuries in that secluded region of Asia ; and the historians of Mahmud, of Gazna, who principally enjoyed the plunder of it, are at a loss for words to describe the astonishment and exultation of that prince, whose mind equally felt the goad of avarice and ambition, at the sight of it. They endeavour to impress us with some faint idea of it, by asserting, in their hyperbolical way, that he there saw a tree of pure gold, of an enormous size, growing naturally out of the soil ;* which though doubtless to be understood allegorically, may approach nearer the truth than some other of their romantic strains, since, to imitate vines and other trees in gold was an ancient and very

* See Orme's Hindostan, vol. i. p. 9.

favourite custom of the Indian metallurgists ; and I have already, in former parts of this work, given two very apposite instances of it. The first is from Curtius, who, describing the palace of the luxurious monarch Musicanus, whose domain was situated towards the mouth of the Indus, that anciently rolled down gold from its mountainous source, particularly mentions the golden vines that twined around each of the columns that sustained the portico of his palace, in whose spreading branches were seen interspersed birds of silver, and others of various coloured enamel, to resemble nature. The second was the splendid gallery, seen by Tavernier, in the palace of Agra, which was partly covered with a kind of lattice work of gold, over which the tendrils of a golden vine diffused themselves, bearing fruit, of emerald, rubies, and other precious stones, resembling grapes in their different advances towards maturity ; but this magnificent project he was obliged to drop, as, according to that traveller, it would have taken up more riches than all the world could furnish. The same device I have had repeated occasion to mention as much in esteem at the Persian court.

In evidence of their superabundant wealth in bullion may be enumerated the expiatory oblations for certain offences, ordained by the

Hindoo code, to be made in that metal by the ancient rajahs, and which, in fact, were frequently made to atone for, or to avert, evil; as, for instance, the weight of the person presenting the offering, in gold or silver; TREES AND VINES OF GOLD; golden elephants; golden horses and cows; and even chariots, drawn by horses and elephants, entirely of gold.*

The principal use, to which the Indians seem to have applied the immense quantity of bullion, from age to age imported into their empire, was, to melt it down into statues of their deities; if, indeed, by that title we may denominate the personified attributes of the Almighty and the elements of nature. Their pagodas were anciently crowded with these golden and silver statues; they thought any inferior metal must degrade the Divinity, and the sacred emanations that issued from the Source of all Being. Every house, too, was crowded with the statues of their ancestors, cast in gold and silver; those ancestors that were exalted to the stars for their piety or valour. This custom of erecting golden statues, in their houses and temples, to brave and virtuous men, seems to have remained long after the time of Alexander; for, we are told, by the same Apollonius, that he saw in India two

* Ayeen Akbery, vol. iii. p. 229.

golden statues of that hero, and two of brass, representing Porus, the conquered Porus, and therefore of inferior metal.* The very altar of the temple was of massy gold; the incense flamed in censers of gold; and golden chalices and vases bore the honey, the oil, the wine, and the fruits, offered at their blameless sacrifice. I have already mentioned the temple of the Sun, or rather of Auruna, the day-star, described by Philostratus, whose lofty walls of porphyry were internally covered with broad plates of gold, sculptured in rays, that, diverging every way, dazzled the beholder, while the radiant image of the adored deity burned in gems of infinite variety and unequalled beauty on the spangled floor. The floor, also, of the great temple of Naugracut, in the northern mountains, even so late in time as the visit of Mandesloe, we have seen, was covered with plates of gold; and thus the Hindoo, in his purer devotion, trampled upon the god of half mankind. In the processions, also, made in honour of their idols, the utmost magnificence prevailed; they then brought forth all the wealth of the temple, and every order of people strove to outvie each other in displaying their riches, and adding to the pomp. The elephants marched first, richly decorated with

* Philostrat. lib. ii. cap. II.

gold and silver ornaments, studded with precious stones; chariots, overlaid with those metals, and loaded with them in ingots, advanced next; then followed the sacred steers, coupled together with yokes of gold, and a train of the noblest and most beautiful beasts of the forest, by nature fierce and sanguinary, but rendered mild and tractable by the skill of man; an immense multitude of priests carrying vessels, plates, dishes, and other utensils, all of gold, adorned with diamonds, rubies, and sapphires, for the sumptuous feast of which the gods were to partake, brought up the rear.* During all this time the air was rent with the sound of various instruments, martial and festive; and the dancing girls displayed, in their sumptuous apparel, the wealth of whole provinces exhausted to decorate beauty devoted to religion.

If the zeal of the Arabians to make proselytes, added to their insatiable avarice, had not burst upon India in such a torrent of wide-wasting destruction, so little did the Greeks and Romans know of the internal provinces of India, we should probably to this day have remained in ignorance of the riches with which their palaces and their temples overflowed. Their native monarchs, grey with

* Strabo, lib. xv. p. 710.

age, and venerable for wisdom, would still have poised the equal balance, and still wielded the righteous sabre. But, when the crescent of Mohammed rose to shed its baleful lustre on the banks of the Seendhu, the order and harmony, immemorially established throughout that vast empire, by the profound policy of its legislator, instantly fled; all the sanctities of religion, and all the bulwarks of ancient law, were alike trampled upon; the fortitude of the rajah availed him not, and the priest in vain thundered forth his anathemas. The tiara was rudely torn from the head of the former, and the golden slumber of the latter was for ever broken. No palliation, no compromise, was admitted. The bigotted fury of the first invaders of India urged them to exterminate rather than subdue; the tithe would not content them; their merciless grasp seized the whole spoil. The western provinces first felt that fury; and, in my account of Lahore, in the Geographical Dissertation, I had occasion to intimate the enormous treasure found only on the person of the rajah of that province; who, when taken captive, had around his neck sixteen strings of jewels, each of which was valued at above a hundred and eighty thousand rupees, and the whole at three hundred and twenty thousand pounds sterling; a sum, how-

ever, comparatively trifling, compared with that of which the sultan of Gazna afterwards became master in his irruption into the same province, and which Mirkhond states at seven millions of coin in gold, seven hundred maunds of gold in ingots, together with an inestimable quantity of pearls and precious stones.* The maund is a Persian weight, varying in different parts of the East, but never estimated below forty pounds.

Let us attend this valiant marauder on another or two of his plundering excursions into Hindostan. At the holy fane of Kreeshna, at Mathura, he found five great idols of pure gold, with rubies for eyes, of immense value. He found also there a hundred idols of silver; which being melted down, loaded as many camels with bullion; and it will be remembered that the usual load which this powerful animal carries is from 750 to 1200 lb. weight, varying according to its magnitude. At the great temple of Sumnaut he found many thousand of gold and silver idols of smaller magnitude, a chain of solid gold, which was suspended from the roof, and weighed forty maunds, besides an inestimable hoard of jewels of the first water.† This prince, a day or two

* Mirkhond apud Texeira, p. 280.

† See Herbelot on the article Mahmud, of Gazna; and Ferishta, pages 73 and 86.

before his death, gave orders for the whole wealth of his treasury to be placed before him; and, having for some time, from his throne, feasted his eyes upon the innumerable sacks of gold, and caskets of precious stones, burst into tears; possibly from anguish at the thought of leaving so much treasure behind, but, far more probably, from the cutting reflection of having obtained it, from the plundered Hindoos, by a series of the most atrocious murders, under the sounding and delusive name of conquest.

Astonishing as these accounts of the wealth, found by the first conquerors of India, may appear, yet, when we consider that this is the accumulated undisturbed wealth of a great empire, that had, for nearly three thousand years, been absorbing into its bosom the gold and silver of the whole world, they will not be found absolutely incredible, though possibly, in some degree, exaggerated by the pen of Eastern historians. It should also be remembered, that not only the whole western world had been thus long tributary to India for her gems, linen, and spices, but that the mines of the Aurea Chersonesus, generally thought to be Siam; those of Japan, productive of the purest ore; those of Pegu, Sumatra, and Borneo, have immemorially, through one channel or

another, supplied the markets of India with these precious metals ; and, when once imported either into India or China, we know that express and severe laws forbade its exportation, except when blended and incorporated with the brocades and other rich manufactures of those countries. In direct proof, however, that the above splendid details do by no means originate merely in the fanciful brain of the Asiatic biographers of the Gaznavide sovereign, may be adduced the almost-infinite treasures obtained by Gengis, Timur, Baber, Nadir, and all the other successive plunderers of Hindostan, down to the sordid wretch,* who, not many years since, tore down the plates of silver from the ceiling of the Divan of Delhi, broke up the floors of that palace for concealed treasures, and after having meanly seized on and sold the robes of the seraglio, endeavoured to extort, by the most excruciating pangs of famine, from the humbled emperor and his attendants, that wealth which the repeated ravage of his limited domain did not permit the last of the race of Timur to possess. The riches obtained in these invasions shall be discussed in the succeeding Sections, in which I shall recount the wealth of modern times, and the

* Gholaum Kaudir. See an account of this last dreadful irruption in Asiatic Researches. Vol. iv. p. 421.

sources of it, and compare it with that of the ancient world. I shall commence with an historical view of the successors of the hero of Macedon, who, flushed with conquest, and loaded with the spoils of plundered Asia, are urging their triumphant progress to the respective kingdoms, which they have mutually, but faithlessly stipulated to make the limits of their ambition.

SECTION II.

The Author, in this Section, returns to the Consideration of the Wealth obtained by ALEXANDER, and its Dispersion by his Successors, the PTOLEMIES of EGYPT, the SELEUCIDÆ of SYRIA, and the MACEDONIAN Sovereigns. —A Description, from ATHENÆUS, of a magnificent Festival, of the Phallic Kind, celebrated at ALEXANDRIA, in EGYPT, in which a very large Portion of the Golden and Silver Spoils of BABYLON was displayed. —A Second Description, from the same Writer, of the splendid Pomp and Procession solemnized by ANTIOCHUS EPIPHANES, at DAPHNE, in SYRIA; and exhibiting a still farther Display of the plundered Treasures of the PERSIAN Empire. —A Third from Plutarch, of the Riches found in the Palace of PERSEUS, the last King of MACEDON, and displayed to the ROMAN People during the Triumph of PAULUS ÆMILIUS, the Conqueror of MACEDONIA. —The Whole accumulated Treasures of ASIA stated to have finally centred in ROME, and Instances enumerated of the astonishing Wealth possessed by some of the private Citizens of that Republic.

—Of those Treasures, a considerable Part dissipated by their unbounded Profligacy; a still more considerable Portion fell to the Lot of the GOTHs, VANDALS, and other barbarous Nations who plundered Rome; but by far the most considerable Portion was buried during the Times of Tyranny and Turbulence, that marked the Reigns of the latter Emperors, in that Earth from which it originally came.

THE extent of the dominion and the magnitude of the spoil obtained by Alexander, exciting not less the ambition than the avarice of his captains, for a long time engaged them in the most unrelenting hostilities, and became the occasion of deluging Asia with new torrents of blood. The final result of those contests for wealth and empire, it is well known, was the firm establishment of Ptolemy on the throne of Egypt and its vast dependencies; Seleucus, on that of Syria, with all those rich provinces of Asia that formed the Persian empire; Cassander, on the throne of Macedon and Greece; and Lysimachus on that of Thrace, Bythinia, and all the remaining territories won by the sword of Alexander. It may, indeed, be reasonably supposed, that no inconsiderable share of the *coined money* in the treasury of Babylon was dissipated in the course of the violent

struggles of the contending parties, but still the great mass of bullion remained unviolated ; and each competitor carried away to his respective dominions such a proportion of gold and silver vases, statues, and other ornamental furniture of the superb palace of Babylon, as might be mutually agreed on. But Ptolemy, the most powerful, from interest, talents, and kindred, (for, he is with great reason supposed to have been the brother of Alexander,) seems to have obtained the largest share ; since, without it, he never could have executed those stupendous projects, kept up that magnificent court and those expensive establishments, and maintained those vast armies and fleets, whose number we have before recapitulated. One particular project, indeed, that of reviving the trade of Egypt with Arabia, India, and the higher Æthiopia, could not fail of being attended with circumstances the most auspicious to his revenues ; and bringing such an influx of wealth into that kingdom as it had never witnessed under the most potent of her ancient sovereigns. Near the close of a long and glorious, though, during its early periods, turbulent, reign, this wise prince, to prevent the court-cabals and jealous contentions usual at the decease of great eastern Monarchs, resolved to associate with himself in the imperial

dignity, his son Ptolemy Philadelphus; and it was at the grand procession, which took place at the coronation of that august prince, that all the wealth of Egypt in these articles was displayed. The particulars of this pompous festival are related by Athenæus with a minuteness which there is no occasion for me to imitate, my object being, principally, to present in order before the reader's view the costly remains of the Assyrian and Persian grandeur, and I may also add that of the ancient Pharaohs; not only that portion of it which was plundered by Cambyzes, but, in all probability, much of that which the brave, but unfortunate, Nectanebus, the last of her proud dynasty of native sovereigns, carried away with him into Æthiopia, when he fled before the ravages of Darius Ochus; and which might have floated back to Alexandria in the reflux of the revived commerce of Egypt with the empire beyond the cataracts.

A series of tents, the hangings of which were fabricated of the richest materials which the looms of the East could furnish, the gold and silver brocades of Persia, the fine linen of Egypt, and the delicate cottons of India, composed the royal pavilion. It was adorned with numerous statues, sculptures, and emblematic paintings, allusive to the grand occasion; the elaborate work of the most exquisite artists

that Greece could produce. The pillars that sustained the pavilion were of massy silver, and shields of gold, suspended on high in every part of it, proclaimed at once the magnificent and warlike genius of the sovereign of Egypt.

An artificial cavern, sunk in a remote part of the pavilion, was assigned to the comic, tragic, and satyric, actors, who there feasted upon gold plate, and drank out of gold cups, and who, occasionally issuing from their recess, alternately entertained the company with the display of their respective talents. On the roof glittered two golden eagles, the ancient banner of Persia, and probably from that nation adopted by their victors ; each eagle fifteen cubits in height. Along the sides of the pavilion were ranged one hundred sofas, adorned with rich embroidered coverlets, and of which all the solid parts were gold; the feet having the form of sphinxes. Before each of these sofas were placed golden tripods or footstools, two for each ; while on one side of the sofas were placed one hundred gold dishes, with golden phials for lavation ; and on the other as many golden vessels, richly set with jewels. The whole value of the plate thus exhibited to view, our author informs us, amounted to ten thousand talents.

No adequate conception can be formed of the grandeur and brilliancy of the procession.

Numerous victories, with expanded wings of gold, were first borne along. Next followed a double altar, six cubits in height, wreathed with foliage of gold, decorated with golden ornaments and instruments of sacrifice, and bound round with a crown of gold. Then came one hundred and twenty youths, each carrying a vase of gold; and these were succeeded by forty satyrs, wearing on their heads, and bearing also in their hands, crowns of gold. Two Sileni, each bearing a gold caduceus, and between them a man of gigantic stature carrying also a proportional caduceus of the same metal. These were introductory to the peculiar deity upon whose sports they attended, Bacchus, to whose *numen* the pomp was devoted. And now were borne aloft two mighty vases of gold, called *Θυμακτηρια*, or medicine of the soul, with a square altar of solid gold, sacred to that deity. Another band of satyrs, carrying vases of gold, immediately preceded Bacchus himself, a figure ten cubits in height, enthroned in a car drawn by a hundred and eighty men; before him stood a vast Laconic goblet, big enough to hold ten meretræ; a measure of a hundred pound weight. This was followed by a tripod of gold, upon which there was placed another *Θυμακτηριον*, and two gold phials preceded Nysa, the nurse of Bacchus, a figure of the height of eight

cubits, wearing a gold crown, and holding in her hand a gold phial. She was followed by a hundred and twenty Sileni and satyrs, some of whom carried dishes, others phials, others capacious *Therilcæan* cups of gold. Such was the order and march of those who were to display the treasures in *golden* ornaments and utensils of the sumptuous court of the Ptolemies.—Those fabricated of silver were not less numerous and stupendous, and are thus detailed by Athenæus.

First was exhibited a *crater* of that metal of such enormous magnitude, that the car in which it was placed was obliged to be drawn along by six hundred men; it was so ample as to contain six hundred *meretræ*; and the margin was enriched with a crown of gold, set with all manner of precious stones. It was followed by two other silver vases of inferior dimensions, but still vast; for they were twelve cubits in breadth, and six cubits in height. Then slowly moved in order, before the whole assembled city of Alexandria, gazing in profound astonishment, the under-mentioned costly articles; ten huge tubs of silver; sixteen silver flagons, the largest of which contained thirty *meretræ*, and the least five; ten silver caldrons; twenty-four vases, each with two handles, on five salvers; two silver presses, containing twenty-four gob-

lets; a table of massy silver, of the height of ten cubits; and thirty other tables six cubits high; four tripods of prodigious magnitude, the largest sixteen cubits in circumference; the three others of inferior magnitude, were adorned in the middle with precious stones; twenty-four *Delphic* tripods of silver, still less, and of a different fashion; twenty-six pitchers for water; sixteen *Panathænaic* amphoræ; and a hundred and sixty other silver vessels of all sizes, of which, however, the least held not less than two meretræ; that is two hundred pounds weight. Surely, Mexico itself, that mine of silver, when CORTES made his triumphal entry into that capital, could scarcely have exhibited a grander spectacle. But the torrent of wealth, poured forth from the new into the old world, will form a subject of future consideration. Let us attend (for, we have not half gone through this magnificent procession) to the remaining articles of regal grandeur displayed at this proud festival in Egypt, the spoils of the plundered temples and palaces of Persia, and probably of many of those which, on the Panjab and on the rich shore of the Indus, experienced the fury of Macedonian avarice. The vessels already described, from their enormous dimensions, seem to have been appropriated to the service of the temple solely, and fully verify

all that was said above, concerning the riches of those of Belus and the Dea Syria; the infinity of vases, *all of gold*, to be now enumerated, probably formed part of the splendid furniture of the palaces of Susa, Persepolis, and the great Babylon.

This part of the procession commenced with the exposition of four *Laconic* and two *Corinthian* vases of the finest gold, each of which held eight meretræ. A press, or side-board, followed, bearing ten goblets and two vases, each of which held the quantity of two meretræ. Then came in order the following articles: twenty-two vases called *Psycteres*, the largest containing thirty meretræ; and the least, one; four noble tripods of gold; a vast machine, or case, of gold, ten cubits in length, for holding the vases, divided into six compartments, curiously engraved, and adorned with figures of animals, four palms high; two very large goblets; two salvers of gold, four cubits in diameter, and three others of less dimensions; ten amphoræ, or great jars of gold; a golden altar six cubits high; and twenty-five pateræ.

We now come to circumstances that prove this festival to have been of the Phallic kind, as indeed were all the Bacchanal festivals of ancient æras, Bacchus representing the sun, the great invigorative power of nature, who ripens

the ore in the mine, and therefore properly dedicated to him. In this part of the pomp, gold and silver are promiscuously introduced, and I am inclined to think the circumstance allusive to his own conjunction with the moon; silver being her *chemical* distinction. Consonantly to the idea abovementioned, sixteen hundred youths, in the flower of their age, now appear carrying vases of gold and silver, and three hundred and twenty of that particular sort of gold vessel, called, by the ancients, *Ψυκτηρες*, *vasa in quo vinum refrigeratur*, or immense vases, used in the hot Eastern countries for the purpose of cooling wine. Young men, of more mature years, now succeed, carrying vases of gold and silver. Next a train of nymphs, sporting around an artificial cave, drawn along in a car, appeared in crowns of gold, while Mercury waved over their heads a gold *caduceus*, that is, in fact, a thyrsus encircled with serpents. Bacchus now re-entered the plain with the same gigantic form, but exalted upon an elephant; a radiated crown of gold encircled his temples, and he wielded in his hand a gold thyrsus of considerable magnitude. Another elephant followed, upon whose neck rode a satyr, having on his head a crown of gold; the elephant also had a gold crown, and his *ness* and *caparisons* were entirely of that

metal. Five hundred young virgins followed, all decked with crowns of gold ; after them, one hundred and twenty satyrs in complete armour, some of silver and others of brass ; and these, to render the scene as varied and diverting as possible, were succeeded by five troops of asses, glittering in gold and silver trappings, with Sileni and satyrs mounted on their backs. Next came sixty Æthiopian savages, carrying vases full of gold and silver coin, and loaded with the gold dust which their country so abundantly produces. Priapus was too important to be excluded from a Phallic festival, and therefore he appeared conspicuous with a brilliant diadem of gold. The city of Corinth, then the centre of luxury and voluptuousness, was represented by a female of great majesty and beauty, and wore a diadem of equal brilliancy. Alexander himself conjured up from the shades of Erebus, accompanied by Ptolemy and his other favourite generals, was seen stalking among the motley crowd, admiring the magnificence of his new-built city, and issuing orders for the conquest of new worlds. Before him, was carried a monstrous vase of gold, possibly in allusion to his death by the Herculean cup, and it was full of small golden cups, by which the stream of intemperance flowed among the individuals present at the fatal banquet. But now

a still more splendid and crowded scenery took place, and the great distinguishing pageants of the pomp were ushered in by a vast and beautiful train of women, representing the cities of Ionia and the Grecian islands, all bearing crowns of gold, inscribed with the name of each city, represented and decorated with a profusion of golden ornaments allusive to its peculiar history and commerce. They moved on majestically, with measured step, before a four-wheeled car, bearing an immense thyrsus of gold, ninety cubits long ; and by its side a silver lance of the length of sixty cubits. On another superb car was elevated a PHALLUS of gold, one hundred and twenty cubits in length, and of the circumference of six cubits ; crowned on the summit with a radiated star that blazed in gold. Three hundred youths followed this stupendous ensign of Bacchus, wearing on their heads crowns of gold, and carrying, in their hands, guitars overlaid with plates of that metal, which sounded forth symphonies that waked the transported soul to the pleasures of love and the festivities of wine. The procession, in honour of Bacchus, closed with a procession of no less than two thousand bulls, the animal sacred to that deity, each wearing a frontlet of gold, surmounted with a golden crown ; and also adorned with a collar and ÆGIS of gold.—Bacchus,

under the terrestrial name of Osiris, being the god-king of Egypt, and the founder of its most ancient dynasty, the reader will scarcely be surprised, that, in the celebration of his rites, all the treasures of that kingdom should be displayed, and that it even surpassed in splendor the pomp of Jupiter and other deities, which now took place, but which can only be cursorily noticed.

As Alexander was the son of Jupiter, his statue, in massy gold, appeared conspicuous in that procession, and, after them, were borne several royal thrones, **fabricated** of gold and ivory, (among them, **probably** Solomon's,) to mark his subversion and seizure of the imperial thrones of Asia. All these thrones bore crowns of gold, and golden *cornucopiæ*, a symbol which we see constantly impressed on the coins of the Ptolemies. Nothing, however, could equal in value or lustre the gorgeous throne of Ptolemy Soter himself, set with jewels, and decorated, with a crown; in making which, our author informs us, were expended ten thousand pieces of gold, though of what weight he does not specify. Then followed three hundred censers of gold, in which were **burned** the richest perfumes of Egypt and Arabia, and which wafted around the assembly those exquisite odours so necessary to relieve the spirits, that began to be

wearied with a procession so prolonged, though so brilliant. After the censers, were borne fifty gilt altars, with crowns of gold on each, and on one of which were fixed four torches cased with gold, six cubits in height; twelve gilt hearths, of vast dimensions, for the sacred fires; nine Delphic tripods of solid gold, four cubits in height; eight others, six cubits high; another worthy of Apollo himself, thirty cubits in height, adorned with animals, wrought in gold, each five cubits high, and circled with a chaplet of gold, formed to resemble vine-leaves. Besides these, there was an infinite variety of vessels richly gilt, which it is beyond our purpose to enumerate; but the historian, summing up the number of gold crowns, exhibited in the pomp of Jupiter alone, makes the whole amount to three thousand and two hundred, independent of a most magnificent one, of the height of eighty cubits, which was placed over the portal of the temple of Berenice, the wife of Ptolemy, but taken down to increase the unequalled splendor of this festival.

The most remarkable articles exhibited in the poms of other deities were a great ægis of gold; the innumerable crowns of gold worn by the virgins that contributed to form those poms; a gold *thorax* of twelve cubits; another of silver, eighteen cubits high; a peculiarly

splendid diadem formed to resemble oak-leaves, and glittering with precious stones; twenty shields of solid gold; sixty-four sets of complete armour all of gold, with greaves of gold, probably of a vast magnitude, and these were displayed in the procession in honour of Mars or Hercules; dishes, phials, vases, and pitchers, of gold; and, in particular, five tables, decorated with gold goblets; a prodigious cornucopia of gold, of the height of thirty cubits; the whole pomp being closed with twenty carts loaded with smaller vessels of gold; and four hundred full of pateræ, vessels, and other utensils of silver.*

The reader, who does not possess a warm Oriental fancy, may possibly be inclined to think all this a fable wilder than Arabian; and yet Athenæus is an author of great respectability, and due attention to what has before been observed, concerning the rich and abundant sources whence the treasures of Eastern princes were derived, renders the whole account extremely probable; for, notwithstanding all the expensive, and some disastrous, wars, in which the Ptolemies were engaged for a series of years with the kings of Syria, their potent rivals in wealth and fame, from the Roman accounts

* Vide Athênæi Deipnosophist. lib. v. p. 197 to 203. Edit. Casaubon.

of the astonishing magnificence that reigned in the court of Cleopatra, we may be convinced; that the source of the vast treasures of that dynasty was not dried up; for, in truth, that source was the commerce with India, instituted by the first Ptolemies, and preserved sacred and inviolable by the last; a commerce, of the magnitude of which some judgment may be formed from this circumstance, that in the time of Augustus Cæsar, the taxes paid to the Roman government by Alexandria alone amounted, according to the lowest calculation by which Dr. Arbuthnot could estimate that amount, to one million six hundred twenty-seven thousand five hundred pounds.* The particular instance of the splendor and profusion in which Cleopatra lived is to be found in the same Athenæus, from whom I have extracted the long description above, and it proves that the gold and silver plate enumerated in it still remained in great abundance in the palace of Alexandria; for, having invited Anthony to a banquet at which the vast number of gold cups, set with jewels, excited his admiration and astonishment, that queen immediately presented him with the whole assortment made use of at the entertainment, and ordered her attendants to carry them all to his house. The succeeding day he was

* Arbuthnot on Coins, p. 193.

again invited to a royal banquet, and requested to bring with him all the chief officers of his army; and, when that banquet was over, every guest was presented with the gold cup out of which he had drunk.* Nay, her extravagance was carried to such an extreme, that, having in her ears two of the finest and largest pearls ever seen, each supposed to be worth above eighty thousand pounds of our money, she dissolved one of them in vinegar, and drank it off; and was going to dissolve the other in the same manner that Anthony might pledge her in a draught of similar cost, but was prevented by the interference of the company.† It is probable that the famous pearl with which Julius Cæsar presented Servilia, the mother of Brutus, and worth, according to Arbuthnot, £48,457. 10s. sterling, came from the same quarter; for, Cæsar had been the prior favourite of the voluptuous Cleopatra. After these well attested facts, which were, in Pliny's time, commonly known at Rome, our author's assertion will probably more easily obtain credit with the reader, that the regular annual revenue of Ptolemy Philadelphus amounted to fourteen thousand eight hundred talents in money, independent of the immense tribute paid in kind

* Athenæus Deipnosophist. lib. iv. p. 147.

† Plinii lib. xxxiii. cap. 3.

by many of the provinces of Egypt, whence money could not conveniently be drawn; and that, at his decease, were actually found in his treasury seven hundred and forty thousand talents, a sum amounting to one hundred and ninety millions sterling.*

Having taken this view of the riches and grandeur displayed in the capital of one of the dynasties founded after the decease of Alexander, we must now direct our survey to those of another, the Seleucidæ, who, though denominated sovereigns of Syria, yet, in fact, possessed all the rich and extensive domains that formerly constituted the Persian empire; but Seleucus, the first of that dynasty, having built the superb city of Antioch, in Syria, fixed on that city, as did the sovereigns, his successors, for the metropolis of his empire. There can be no doubt, that, with the throne of Persia, a very considerable portion of its ancient riches was assigned to Seleucus, as well to maintain its splendor as to defray the expenses of a government that stretched in a vast line from the shores of the Mediterranean to the river Indus. It should also be remembered, that, in this partition of the empire of Alexander, his Indian conquests fell to the lot of

* Athenæus, lib. v. p. 103, and Bernard on the Weights and Measures of the Ancients, p. 186.

Seleucus, and though he bartered away those conquests to Sandrocottus, by the mediation of Megasthenes, his ambassador at Patna, then the capital of India, we may rest assured, that, from that quarter, by commerce or otherwise, no small quantity of treasure poured into the provinces adjoining its western confines, which must ultimately find its way to the distant capital. Engaged, however, in almost incessant wars, and, when peace arrived, resolutely pursuing, like Ptolemy, the wise projects of Alexander in erecting cities, and encouraging that extensive commerce for which Antioch was at once so commodiously situated and so widely famed, that great prince hoarded not up useless treasures, but expended with wisdom what he received in abundance. His successors on the throne of Syria by no means acted with his wisdom or policy, and, amidst their other insanities, violated the harmony that had for many years subsisted between the families of the two most renowned generals of the school of Alexander. This rash conduct occasioned the descent of Ptolemy Euergetes, who, in the reign of Antiochus Theos, with a vast army, laid waste and plundered the richest provinces of the Syrian empire, carrying back with him into Egypt no less than forty thousand talents of silver, an inestimable quantity of gold and

silver vessels, and two thousand five hundred statues, of many of which Cambyzes had formerly pillaged Egypt, and, from returning which to its violated temples, the conqueror obtained, as before-intimated, from its grateful inhabitants, the illustrious title of Benefactor.*

Still, however, amidst the desolations of war and the ravages of avarice, a sufficient quantity of treasure remained to the Seleucidæ for the exhibition, even in the late period of their declining power, and after Antiochus the Great had been despoiled by Scipio Africanus of that enormous aggregate of wealth, the influx of which was the source at once of the grandeur and ruin of Rome, for the exhibition. I say, of a spectacle only inferior in magnificence and brilliancy to that of the first Ptolemy. We are indebted to Polybius for the description of this splendid procession which took place in the reign of Antiochus Epiphanes, at Daphne, near Antioch; the more splendid on account of the numerous cavalry who helped to form it, and who, by the lustre and clangor of the peculiar armour worn by them, as well as the prancing and costly caparisons of the noble animal that

* See Justin, lib. xxvii. cap. 1, and Hieron. on Dan. cap. 11, in which chapter this irruption is plainly, and almost in as many words, predicted.

bears them, never fail to throw an additional glory on this kind of exhibition.

An immense body of infantry, in the war-like habits of the respective nations of Asia Minor, Greece, and Rome, having for the most part crowns of gold on their heads, and bearing shields of silver, marched foremost in the procession. They were followed by a thousand youths mounted on Nicæan horses, succeeded by three thousand others on horses, not indeed of the Nicæan breed, but the finest which the other regions of Asia could produce, all adorned with gold trappings, and wearing gold crowns. A thousand of the king's friends and relations, arrayed in the most sumptuous dresses, followed next on horses still more splendidly caparisoned than the former: to these succeeded the body-guard of the kings of Syria; a band of four thousand horsemen, clothed in purple robes interwoven with gold. This part of the procession was closed by a hundred and forty-two chariots, richly painted and gilded, drawn some by six and some by four horses abreast.

That part of the procession which related to religion was ushered in by eight hundred youths, in the flower and bloom of their age, bearing crowns of gold. These walked before

the statues of the Syrian and Greek deities borne aloft by men most magnificently attired; after whom immediately followed a thousand pages, each of whom carried a silver vessel, the least weighing a thousand drachmas. The king's own pages, amounting to six hundred in number, came next, carrying vessels of gold; and, after them, two hundred virgins, bearing gold chalices, filled with scented waters, with which they liberally sprinkled the spectators. In the rear of the procession were borne eighty litters with pillared feet of massy gold, on which sate as many women, probably the wives of the sovereign, superbly decorated with gold and jewels; and, after them, five hundred more, probably his concubines, with pillared feet of solid silver.

The sports and games commenced when the procession closed, and afterwards the banquet was served up on fifteen hundred tables, at which an innumerable company partook of the rarest delicacies in viands and wines which ransacked Asia and Europe could furnish. In the spacious banqueting-hall were placed fifteen vast basins of gold, which were filled with unguents of the most expensive kind for the use of the guests; and the king himself, with great affability, attended in person upon

them, arrayed in his royal robes, and wearing the diadem of Syria.*

With respect to Lysimachus, the third great sharer of the empire of Alexander, after a long train of varied events fortunate and disastrous, he himself was, at an advanced age, slain in a battle with Seleucus Nicator, who made himself master both of his dominions and treasures, which were immense, and deposited at Sardis. Cassander, also, the fourth who succeeded to Alexander's hereditary kingdom, was too deeply engaged in perpetual foreign contests with Antigonus, Demetrius, and other rivals, to allow of his giving any of those magnificent entertainments, by which an adequate idea may be formed of the wealthy spoils which he acquired; but a most ample and complete view of the wealth that flowed from plundered Asia into the treasury of Macedon may be obtained, by adverting to the prodigious treasure of every description found in the palace of Perseus, by Paulus Æmilius, when in the year 167 before Christ, he conquered that kingdom, and converted the illustrious country that gave birth to Philip and to Alexander into a province of the Roman empire. These treasures which were displayed in a public triumph decreed

* Athenæus, lib. v. cap. 4, p. 194, 195.

Æmilius, amounted to such an immense sum of coined money and bullion, and so glutted Rome with gold and silver, that, in consequence of it, no taxes were levied upon the Roman people for the support of the republic till the consulship of Hirtius and Pansa, a period of one hundred and twenty years, notwithstanding it was all that time engaged in carrying on expensive wars in almost every quarter of the known world. While the reader is informed of this circumstance, how must his indignation be excited against that, in this instance, barbarous race of conquerors, for permitting the wretched father, after having been dragged in triumph through the streets of Rome, to perish by the pangs of famine in a common jail. That indeed was the fate of the father ! But harder still the doom of his infant sons ! the first of whom died (possibly of a broken heart) some time before his miserable parent ; while the other, though bearing the august name of Alexander, was denied the education and accomplishments suitable to his noble birth, and finally attempted to have his high spirit broken, by being placed out, by this generous and grateful republic, to the degrading occupation of a joiner or turner.

The particulars of the splendid triumph decreed Æmilius, for his important conquest of

Macedon, are minutely detailed by Plutarch, with an extract from which I shall close this extended account of the dispersion of the spoils obtained by the irruption of the Greeks into the Higher Asia.

The celebration of this triumph, the grandest that Rome ever witnessed, took up the space of three days; the first of which was wholly occupied by the procession of two hundred and fifty waggons, loaded with captives, and the beautiful productions of the most celebrated artists of Greece, paintings exquisitely finished, statues that seemed to speak, and all the other rare and sumptuous ornaments found in the palace of the Macedonian sovereign. On the second day were displayed the various kinds of arms worn by the Macedonians and the conquered Greeks, their allies, consisting of helmets, shields, coats of mail, javelins, and spears, the former mostly of brass, the latter of steel, all highly polished for the occasion, and glittering in the beams of the sun. Amidst these, the splendid accoutrements of the renowned Macedonian phalanx, in a more particular manner, excited the interest and admiration of the Roman people, while they reflected on the vicissitudes of war, that often obscure the glory of the proudest conquerors. The recorded feats of that once-invincible band rushed

upon their memories, and the very clashing of their armour struck the gazing throng with awe and dismay. After this display, they were feasted with a spectacle which gave birth to very different sensations; it was part of the contents of the treasury of the subjugated kingdom, the silver currency of Macedon, borne by three thousand men, in large vases that held each the amount of three talents, and every one of which required four men to carry it. The number of the vases were seven hundred and fifty, and therefore the total sum amounted to two thousand two hundred and fifty talents, in coined silver only, while a far greater amount in bullion followed in the form of elegant vases, cornucopiæ, goblets, phials, and cups of all sizes, of which the distinguishing excellence was not so much that they were silver, but that they were the work of Greek artists, equally admirable for the sublimity of the design and the beauty of the execution. The exhibition of the golden spoil was reserved for the last and most splendid day of the festival; and the order of the march on that day was as follows:

It was ushered in with a full chorus of trumpets, sounding notes not such, says our author, as were generally heard on these public solemnities, sprightly and festive, but notes of the

more martial and animating kind, such as rouze the soul of the young warrior, bring the blood into his glowing cheek, and drive him, in an agony of transport, on the terrified enemy. The band of trumpeters was followed by a hundred and twenty oxen, with gilded horns, and decorated with garlands for sacrifice; these were led by a train of young men, adorned with sashes curiously wrought, and bearing the sacrificial instruments, who were accompanied by children carrying pateras, some of silver and some of gold. After these came, as on the preceding day, three thousand soldiers, who carried the coined money in gold in seventy-seven vessels of three talents weight; which, estimating the amount according to the proportional value which gold then bore to silver, which may fairly be stated as one to twelve, and would, probably, in that early period of the Roman empire, be under-rated at the decuple, the general rate of calculation, swells the total to an enormous sum, such as Rome till then had been a stranger to. The bullion, or gold plate, was next displayed; and first, was borne an enormous article of sacred pomp weighing ten talents, called the *consecrated phial*, made of solid gold, and set with precious stones. The drinking vessels that bore the name of Antigonus, of Seleucus, and of

Thericles, because either used by those heroes or devoted to their memory, and all the costly utensils of gold that decorated the table and side-board of the luxurious Perseus, consisting of dishes, vases, and goblets, to an immense amount, were next exhibited in long and brilliant succession. After these, came the chariot of the captive monarch, in which was seen his sumptuous armour, and on the top of which glittered his ravished diadem. The infant-children and their attendants followed, a spectacle that melted the most obdurate hearts; and last was seen the unfortunate king, arrayed in sables, and having the appearance of a man bereaved of his senses, through the magnitude of his misfortunes and the severity of his sufferings. But all momentary impressions of compassion were chased away from the breasts of those barbarous victors, by the splendid pageants that succeeded, which consisted of four hundred crowns of gold, that had been presented to Æmilius by the cities of Greece and Asia Minor, as tokens of their submission to his arms, or veneration of his virtues. The magnificent triumphal car of that conqueror succeeded, on which he sate exalted in a robe of purple interwoven with gold; his brows crowned with a chaplet of laurel, intermixed with gold leaves, holding in his hands

a branch of that tree. The procession was closed by the whole of his numerous army, who marched after the chariot of their general, waving on high branches of laurel, and rendering the air with songs of triumph and shouts of victory.*

This supply, as we have hinted, glutted for the present the avarice of Rome; but with her luxuries increased her necessities, and the thirst of plunder, not less than the love of glory, henceforth, stimulated her generals to those daring enterprizes which finally made Rome, in her turn, the mistress of the world. The wealth of ruined Carthage, and, in consequence, the undisturbed possession of the Spanish mines, swelled her treasury with exhaustless stores. The two Scipios, denominated from their conquests Asiaticus and Africanus, poured in upon them, in a full stream, the accumulated treasures of those respective regions; the former, after the conquest of Antiochus, paid into that treasury his millies, which Arbuthnot states to be in sterling money sixteen hundred thousand and odd pounds;† but this is a trifling sum compared with the vast mass of treasure brought in by Cæsar, who, Plutarch assures us, after his extensive conquests, added to her stock,

* Plutarch in Vita Æmilii.

† Arbuthnot on the Revenues of Rome, p. 191.

at once, sixty-five thousand talents; above twelve millions and a half English.*

A still more magnificent idea may be formed of the treasure annually drawn by Rome from her Eastern conquests, from what we read in Plutarch, that Anthony made Asia pay, at once, ten years tribute, amounting to twenty myriads of talents, or £38,750,000; the tenth of which is £3,875,000. and therefore gives us the exact tribute for one year.

The effect of the introduction of so much wealth into the capital, was an unbounded licentiousness in its inhabitants; who, in their magnificent entertainments and sumptuous mode of living, far surpassed the princes of Asia itself; for, we soon after find them sleeping on beds of gold and ivory, quaffing the rich wines of Chios and Falernus out of gold and silver goblets, and riding in carriages shining all over with those bright and precious metals. To supply this unlimited extravagance the governors of these provinces, whence they were principally obtained, as we learn from Cicero against Verres, committed the most unheard of extortions; while the most shameless corruption pervaded every department of the state, and the most infamous crimes polluted the whole body of the citizens. Indeed, how was

* Plutarch in Vita Cæsar.

it possible for the stream to be pure when the fountain itself was so deeply contaminated? When we find a Vitellius consuming between seven and eight millions a year on entertainments, and a Caligula expending above eighty thousand pounds sterling on a supper, we cannot wonder at the tragedian Clodius Æsopus lavishing on one luxurious dish 600 *sestertia*, £4,848. 10s.* or the young spendthrift, his son, treating each of his guests, after dinner, with a superb cordial, in which a costly pearl had been dissolved.† The wealth of Crassus was proverbially great, and amounted to £1,614,583. 6s. 8d.; but far greater was that of Pallas, the freed man of Claudius, for it was valued at £2,421,875.; but both were exceeded by that of Lentulus, the augur, who was worth *quater millies*, or £3,229,166. 13s. 4d. Even poets and philosophers, in those golden days, amassed vast fortunes; for Seneca, in four years, acquired *ter millies* £2,421 875.; and, according to Servius, in the life of Virgil, that poet was worth *centies* H. S. or £80,729. 3s. 4d. This sum, however, though great for a poet, was not thought sufficient to support existence by a pampered Roman senator, since the famous Apicius, after spending in culinary delicacies *millies* H. S. or £807,291. 13s. 4d. and squan-

* Pliny, lib. x. cap. 60.

† Ibid, lib. xxxv. cap 12.

dering, besides, the amount of immense grants and pensions, on casting up his accounts, finding he had only this exact sum remaining, poisoned himself, that he might not perish by the severer pangs of famine.

In their dress and furniture they were equally expensive; for Lollia Paulina, the great beauty of Rome in the time of Caligula, and on that account compulsively advanced to his bed, when full-drest, constantly wore jewels of the value of £322,916. 13s. 4d. and the price for rich Babylonian *triclinaria*, coverlids or carpets for their dining-beds, was £6,458. 6s. 8d. Nor could their houses themselves be of mean fabric or decoration; since that of Crassus was valued at *sexagies*, H. S. or £43,437. 10s. while that of Clodius cost *centies et quadragies octies*, or £119,479. 5s. 4d.* Those houses were externally cased with marble, and had marble pillars to support the lofty ceilings; they were internally decorated with rich tapestry; with costly hangings of Tyrian purple; with urns and statues exquisitely sculptured and polished, and paintings of the most beautiful design and brilliant colours; fountains of variegated marble played in their coenacula, or great banquetting-rooms, cooling the air and refreshing the guests, who dined off gold plate, served up

* Pliny, lib. xxxvi. cap. 15.

on tables overlaid with silver, and reclined on sofas sustained by legs of ivory, silver, and sometimes even gold. They were also uncommonly splendid in the article of lamps, which were often fabricated of the most precious materials, and in which they burned the most costly and fragrant oils. The immense wealth that flowed by so many various channels into Rome was not all consumed in that city : great quantities were carried away into remote provinces by the numerous and successive governors, and other men of consular and prætorian dignity, who finally settled there, with their families, in voluntary or compelled exile. A very considerable portion, too, was, in the infancy of the republic, transmitted to support and pay the numerous armies constantly stationed in Gaul, Germany, Britain, and other countries, where gold had not before abounded ; still, however, by far the greater part was swallowed up in the deep vortex of Rome itself ; and it is on record, that Tiberius left in the public treasury *vicies septies millies*, £21,796,875. *gs. 4d.** The emperor Caligula, his successor, delighted in rolling himself about, in all the insatiable lust and pride of avarice, in immense quantities of gold coin, spread abroad on the spacious floor of his palace. Yet was this

* Plutarch, in Vita Tiberii.

insane cupidity presently succeeded by as wild extravagance, in throwing down money by handfuls, from a high tower, among the scrambling populace, and this continued for many days together, as well as at entertainments; wherein every article, not only the dishes, but the viands also, though bearing the form of meats, were of solid gold; the fictitious meats and golden dishes being afterwards distributed among the guests.* Nor was it only for human beings that he provided this species of golden banquet; his favourite horse, whom he denominated *Incitatus*, must also share the sumptuous repast. The stable of that animal was formed of fine marble: his manger was of ivory; he wore a collar of rich pearls round his neck, and his caparisons were of Tyrian purple. Thus splendidly accommodated, it seems but consistent that this prince of a horse should be regaled with equal magnificence; he, therefore, was fed with gilded oats, and drank the most costly wines out of golden chalices. In these and similar absurdities, this frantic tyrant, this alternate miser and prodigal, in the two last years only of his short reign, is reported to have squandered away eighteen millions of the public money.

However prodigious were the sums expended

* Suetonius in *Caligula*, cap. 29.

by the emperors of Rome, they were soon reinstated in the treasury by their absolute power and boundless rapacity; and the reign of Claudius exhibits an instance of three persons his freed men and chief ministers, Narcissus, Pallas, and Calistus, who are said to have amassed more wealth than Croesus and all the kings of Persia and of the empire, and to have been, in their delegated governments, equally rapacious and profuse; keeping their weak and timid sovereign in the chains of dependance and poverty. But whatever sums avarice might have hoarded, or extortion obtained, were dissipated by that monster in human shape, Nero, in the gratification of his unbounded lusts, and in the erection of that stupendous structure, called his *Golden Palace*, from the vast profusion of that metal with which it was adorned; the roof, the walls, the galleries, the saloons, all glittering with gold, ivory, and precious stones. We may form some judgment of the immense sum consumed in the building this palace from what we read in Suetonius, viz. that Nero not having finished it, the first order which Otho, when he became emperor, signed was for *quingenties*, H. S. or fifty millions of sesterces, to complete it; which, reduced to pounds sterling, amount to £403,645. 16s. 8d.*

* Suetonius in Otho, cap. vii.

The enormous sums spent by the imperial glutton Vitellius on his sumptuous banquets, repeated four times a day, have been already specified, and apparently justify the strong assertion of Josephus, that, had he lived much longer, the revenues of the whole Roman empire would scarcely have been sufficient to furnish his luxurious table.

After exhibiting to the reader this faithful picture of the great wealth and prodigality of the Roman people under the early Cæsars, the conquerors of ravaged Asia, there is no occasion for our extending the view farther, or enumerating all the unbounded extravagance of their successors. During the ambitious contests that gradually weakened, then divided, and finally subverted, that empire, the precarious state of all property, but particularly that species of it which consisted in gold and silver, coined or in bullion, every where sought for with avidity by the different usurpers, to pay the armies which they respectively brought into the field, occasioned an immense quantity of treasure to be buried all over Italy underground in vaults and caverns, in gardens, in fields, and under the floors and walls of their houses. The jealous possessor, forcibly hurried away to the field of battle, expired on that field, and the important secret, in what obscure

spot it was concealed, perished with him. Nor was it only in Italy that they were thus buried; the distant provinces felt, through all their limits, the convulsion of the capital; and the inhabitants, harassed by ephemeral tyrants, committed their treasures to the too faithful bosom of the concealing earth. These have occasionally been dug up, through every succeeding century, in Gaul, Germany, and Spain, sometimes in very large quantities; and have well rewarded the toil of the fortunate husbandman, and the zeal of the exploring antiquary. A treasure of no less than eighty thousand large gold coin or medals, each of the value of six Roman crowns, was, according to Mountfaucon,* in 1714, discovered near Modena in Italy. They seemed all to have been struck in very early periods of the Roman grandeur, and the least antique of them were those of Julius Cæsar and the Triumvirate. Particular reasons induced Mr. Fontanini, the correspondent of Mountfaucon, who transmitted him an account of the discovery, to suppose these medals belonged to the military chest of the army collected by Lucius Antonius and Fulvia against Augustus. The treasures of Roman money also dug up in France, Germany,

* See the Supplement to Mountfaucon's Antiquities, book v. p. 329.

and Spain, during the middle centuries, were amazingly great ; and during the failure of the ancient sources of wealth, in part supplied the quantity necessary for carrying on the commercial intercourse of Europe.

Before we conclude this Dissertation on the treasures of the ancient world, it is necessary we should again advert to those Asiatic regions whence we commenced our survey, and where, especially in India, the same pernicious practice of burying money in vast quantities has immemorably prevailed. And here we may remark, that, although in the vast sums of coined money at different periods dug up in Europe, the overflowing wealth of the Roman capital may, in some degree, be accounted for ; yet, as immense treasures must have still remained dispersed over the extensive provinces of Asia, which never found its way into Europe, hoarded in the coffers of the miser or concealed in the vaults of the palaces of the kings and satraps of the East, far more remains still unaccounted for, or how comes it that such a slender stock of Asiatic coins is to be found in the cabinets of those affluent curiosi, who have spared neither toil nor expense to search for and procure them ? Of Darics, and Philippi there are very few indeed : of the immense heaps of money coined by the Ptolemies, and the other Greek sove-

reigns who succeeded Alexander, a very moderate proportion also has reached posterity. India, thou avaricious glutton, whose rapacious jaws, from the first of time, have swallowed the gold and silver of the world, it is thou that hast caused this dearth; confess thy treachery to the cause of medallic science; they have gone to swell the magnificence of thy pagodas, and, without the least regard to the grandeur of the design, the majesty of the character impressed, or the unequalled beauty of the execution, thy refiners have melted them down in their crucibles to an unanimated mass, of value only proportioned to its weight.

On the plains of India, also, not less than on those of Europe, are supposed to lie buried treasures, principally in bullion, to an incalculable amount, deposited there during the ravages and oppression of successive conquerors through at least eight centuries of anarchy and tumult; I mean, from the 7th century to the mild and peaceable reign of Akber. These are now and then, though rarely, discovered, and sometimes Greek coins, probably of high antiquity, as the Greeks of Caria and other maritime countries visited the coasts of the peninsula almost as early as the Phœnicians themselves. Mr. Chambers, in his account of the ruins of Mavalipuram, written in 1784, acquaints us, that he was

informed by the Kauzy of Madras, that, some years previous to that period, a RYOT, or husbandman, in ploughing his ground, had found a pot of gold and silver coins, with characters on them which no one in those parts, Hindoo or Mahommedan, (therefore, plainly, neither Arabic nor Sanscreeet,) was able to decipher. That the Kauzy, however, at the same time informed him, all search for them, then, would be in vain, for they had doubtless long ago been devoted to the crucible, as, in their original form no one there thought them of any value.* The extensive plains of Tartary are, also, supposed to contain inexhaustible stores of treasure buried by the Arab and Tartar hordes, who range over those wild solitudes, during either their ancient implacable contests with each other, or the invasion of the Parthians and other hostile nations combined against them.

With respect to India, independent of the domestic statues, which, it has already been observed, it was customary with the ancient Indians to form of the precious metals in fusion, we are well assured that all the great pagodas of India had complete sets, amounting to an immense number, of the avatars and deities, which they would probably deem degraded by any baser metals or meaner substance than gold and silver,

* Asiatic Researches, vol. i. p. 158. Calcutta, quarto edition.

except in those instances in which their mythological superstition ordained that the deity fabricated should be of stone, as in the instance of Jaggernaut, which Captain Hamilton represents as a *pyramidal black* stone, (in the same manner as the ancient Arabians fabricated their deity, though of a *square* figure, to mark his perfection, while the *darkness of the stone* indicated the obscurity of his nature,) with, however, the richest jewels of Golconda for eyes; and, in that of Veeshnu, in the great bason of Catmandu, in Nepal, sculptured in a recumbent posture, and of *blue marble*, to represent the primordial spirit, at the commencement of time, floating on the *cærulean* surface of the chaotic waters. In the Ayeen Akbery there is a very curious chapter on the great skill of the Indian artists in working in gold and jewellery, in which it is expressly affirmed, that the AVATARS are frequently made of gold and silver;* and, since, if completely represented, the figures must be numerous, great quantity of those metals must have been consumed in their fabrication.

The custom of burying every thing most valuable at the approach of an invader is so ancient and so general in Hindostan, that there can be no doubt of many of these costly appendages of the ancient rich pagodas having

* Ayeen Akbery, vol. i. p. 242.

been thus disposed of. I have, myself, seen numerous fragments of these avatars and deities, that have been dug up in fields and gardens, cast in bronze and other metals; and, if they buried these of inferior metals, they undoubtedly would, with still more anxious care, those of the more precious kind. It has also been an immemorial practice in India to throw gold, precious stones, and other sumptuous articles, by way of offerings, into the Ganges, Jumna, and other great rivers, nearly all of which are regarded in a sacred light by that superstitious people; and, therefore, the sandy beds of those rivers may be justly considered as mines of treasure, and reckoned among the richest that Asia affords.

My principal concern, in these Antiquities, being with Hindostan, before I return to the consideration of the state of Europe, and its pecuniary wealth in those times, I shall historically notice the successive plunderers of that empire, after Mahmud, of Gazna. That scourge of India died in the year 1028, of our æra; Gengis appeared first as a warrior on the plains of Asia towards the commencement of the 12th century; but his conquest of the brave Gelaledin, on the banks of the Indus, neither secured him the sovereignty of India, nor put him in possession of that prince's

immense treasures ; for, Gelaleddin consigned those treasures to the Indus, whence a considerable portion was fished up by the avaricious victor. The sources of abundant wealth, however, were by no means wanting to a despotic prince, great in council and vigorous in arms, whose empire is described, by M. Petit de la Croix, to have been greater than that of Alexander or Augustus, extending, from east to west, more than eighteen hundred leagues, and more than a thousand from north to south.* Great indeed that wealth must have been, since we find this monarch making public banquets that lasted an entire month ;† and the officers of his army riding on saddles of gold, and glittering with precious stones. But the luxury of the Tartars had not yet reached its zenith ; it was exemplified in its full splendour by Timur, his descendant, in the beginning of the fifteenth century, at a feast (which he made on a delightful plain called CANAGHA, or *the treasury of roses*,) at which, says an author not given to exaggerated relation, was exhibited such a display of gold and jewels, that, in comparison of them, the riches of Xerxes and Darius were trifling. There can be no doubt but that the greatest part of the wealth thus displayed was obtained in the plunder of

* History of Gengis-Khan, p. 2.

† Ibid. p. 353.

India : and, in the account of Timur's capture of Delhi, in the first volume, I have already enumerated a portion of the treasures which he found in that city, of which, I observed, some judgment might be formed from the immense quantities of precious stones, pearls, rubies, diamonds, gold and silver vessels, money, and bullion, carried away by the army; that even the Indian women and girls were adorned with a profusion of precious stones, and had bracelets and rings of gold and jewels, not only on their hands and feet, but also on their toes; and that of those precious ornaments every individual had secured so ample a store, that they refused the incumbrance of more, so that vast heaps of various plunder of inestimable value were left behind.

Here then we see collected into one central spot all the remaining mass of Asiatic wealth which either flowed not into the hands of the Romans, or was transported back by commerce, and opulent governors, from that capital. In about a century from this period America was discovered, and opened to the daring warrior and adventurous merchant new and invaluable sources of wealth; which, being exported by various channels to the Eastern world, recruited the treasures of Persia and India, exhausted by the repeated ravages of Mohammedan con-

querors. But since that important discovery may be looked upon as the commencement of a new æra in riches and in commerce, the incidents arising from it do not properly come under our survey in a Dissertation on the wealth of the *ancient* world. Till that discovery took place, the great marts of Europe possessed but a very scanty portion of gold and silver; for, the jealous avarice and gloomy bigotry of the Mohammedans, in whose hands now centred the whole trade of Asia, had combined to shut out the European merchants from the rich port of Alexandria, and other maritime cities of the East. During this interval, however, a very seasonable supply of gold and silver bullion was fortunately met with in the mines of Germany, first discovered and wrought, according to Dr. Brown, about the year of Christ 700; traditions on the spot having fixed the working of that of CHREMnitz, the principal and most productive, several English miles in length, to that period. The rigid maxims that urged the Mahomedan despots of the East to exclude from all participation of the Indian commerce the Christian traders, being afterwards somewhat mitigated, Europe received, through the medium of the Genoese and the Venetians, an additional influx of the precious metals produced on the coast of Africa and the regions

bordering on the *Aurea Chersonesus*. Still however, in the great trading cities of Europe, gold and silver were comparatively scarce, and continued so, till a series of success, as unexpected as unmerited, opened to the Spaniards the vast storehouses of these metals in America, whence the golden deluge has never since ceased to flow into their ports ; and, being thence diffused through the courts and palaces of Europe, has given them the appearance of Asiatic splendour, and fixed on the heads of her august sovereigns diadems more brilliant than those that anciently sparkled on the brow of the great Shah of Persia, or the magnificent Mogul of India.

END OF THE DISSERTATION ON THE IM-
MENSE TREASURES IN BULLION AND
COINED MONEY OF THE ANCIENT
SOVEREIGNS OF ASIA.

A
DISSERTATION
ON THE
LITERATURE
OF THE
ANCIENT INDIANS.

A

DISSERTATION, &c.

CHAPTER I.

General Account of the SANSCREET LANGUAGE, Grammar, and Alphabet.—The high Antiquity and wide Diffusion of that Language over the Eastern Region of Asia.—An Investigation of the SCIENCES of the Brahmins, not hitherto discussed in the Indian Antiquities. — ASTRONOMY, necessarily cultivated, in the remotest Periods, by a Race devoted to Agriculture, and immemorially addicted to the SABIAN SUPERSTITION.—A retrospective Survey of the great Outlines of this Science, as anciently known in India.—GEOMETRY proved to have flourished among them, from its connection with the former Science in its advanced State, as well as from their massy Style of Architecture, &c. &c.—MEDICINE,—the Devotion of the ancient Indians to BOTANICAL Researches.

induced an intimate Acquaintance with that Branch of the Science. — The Necessity of providing Remedies against the Bites of Serpents, and other noxious Reptiles abounding in India, promoted their farther Progress in it. — The Sanscreet Treatises on Medicine consist principally of Receipts preserved from Age to Age, and carefully handed down from Father to Son. — The Ancient Indians proved to have been not ignorant of Anatomical Dissections, though regarded with Abhorrence by the modern Brabmins. — Low State of the Science among the latter. — CHEMISTRY, — a Knowledge of this Science, essentially important in various Branches of Indian Manufactures; proved in their AGNEE-ASTRA, or Fire-Weapons used in Battle; as well as other warlike Instruments employed by a People whose second Tribe is entirely military.

THE doctrine that asserts the derivation of all the nations of the earth, however widely and variously dispersed, from one grand parent stock, according to the hypothesis adopted throughout these volumes, — a doctrine equally consonant to the voice of Scripture and the annals of India, — implies that, in the remote period previous to the dispersion of the human race, they used, in common, one primæval

language, *radically* the same, and, at the confusion of Babel, only varied in the mode of its pronunciation ; in other words, that it was a confusion of *the lip*, and not an alteration of language, which took place on that catastrophe ; a *labial failure*, as Mr. Bryant judiciously expresses himself,* which, in effect, proved sufficient to frustrate their impious design in rearing that mighty fabric. The vestiges of this primordial language, in every dialect of the ancient world, are clearly traced in the elaborate work of M. Court de Gebeline. Sir William Jones, also, in various parts of his profounder essays, unequivocally assents to the prevalence of one primary tongue throughout the early branches of the Noachic family, referring even the sublime invention of letters, and the origin of astronomy itself, in which science it appears extremely probable the celestial asterisms were first designated by the *letters of the alphabet*, to the children of Ham in Chaldæa : “ The Sanscreeet language, he observes, whatever be its antiquity, is of a wonderful structure ; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to each of them a stronger affinity, both in the roots of verbs and in the forms of grammar, than could possibly have

* See Analysis of Ancient Mythology, vol. iii. p. 30.

been produced by accident; so strong indeed, that no philologer could examine them all three without believing them to have sprung from some common source, which, perhaps, no longer exists. There is a similar reason, though not quite so forcible, for supposing that both the Gothic and Celtic, though blended with a very different idiom, had the same origin with the Sanscreeet; and the old Persian might be added to the same family.

“ The characters, in which the languages of India were originally written, are called Nagari, from Nagar, *a city*, with the word Deva sometimes prefixed, because they are believed to have been taught by the Divinity himself, who prescribed the artificial order of them in a voice from heaven. These letters, with no greater variation in their form, by the change of straight lines to curves, or conversely, than the Cuthic alphabet has received in its way to India, are still adopted in more than twenty kingdoms and states, from the borders of Cashgar and Khoten to Rama’s Bridge, and from the Seendhu to the river of Siam; nor can I help believing although the polished and elegant Devanagari may not be so ancient as the monumental characters in the caverns of Jarasandha, that the square Chaldaic letters, in which most Hebrew books are copied, were originally the same, or

derived from the same prototype, both with the Indian and Arabian characters : that the Phœnician, from which the Greek and Roman alphabets were formed by various changes and inversions, had a similar origin, there can be little doubt; and the inscriptions at Canarah seem to be compounded of Nagari and Ethiopic letters, which bear a close relation to each other, both in the mode of writing from the left hand, and in the singular manner of connecting the vowels with the consonants.”*

The idea of the Indians, as detailed above, is exactly conformable to that of Plato, and of many Christians, who suppose the first knowledge of letters to have been the result of divine inspiration, or *Deva Nagari*. We may remark, too, that, according to the above decision, the Cuthic, or Chaldaic, alphabet is the basis of all others; and thus again does Indian literature, in a striking manner, corroborate the Hebrew records, the most ancient copies of which are written in such a simple unadorned character, as incontestably proves their high, if not unrivalled, antiquity; in other words, that they were written in the language spoken by the Noachidæ. Diodorus Siculus, in fact, actually ascribes the invention of letters to the Syrians;† that term

* Asiatic Researches, vol. i. p. 425.

† Diodorus Siculus, lib. v. p. 390.

being understood, in its more extended sense, as often used by the ancients, to include Chaldaea and Assyria, in particular by Pliny, who refers letters to the Assyrians; and the oldest Syrian and Phœnician letters are allowed to have been the same. That is the peculiar character which Moses is thought to have used in writing the Pentateuch; and it is that in which the Samaritan, the oldest extant copy of it, is composed.

The Phœnicians, afterwards emigrating under Cadmus, carried letters into Greece; and the striking resemblance, both in form, sound, and arrangement, of the latter, with the former, indubitably establishes their origin. But, if they were not sufficient of themselves to demonstrate the Oriental origin of letters, an irrefragable proof is derived from the circumstance of the Greeks having retained, with very little variation, the original names of the letters thus imported into their country from Phœnicia. From Greece, the Pelasgic colonies carried the Cadmean letters into Italy; evidenced also by the same resembling circumstances of fabrication, arrangement, and sound.

At what a remote æra, indeed, *letters* were used in Assyria may be deduced from the account sent to Aristotle, from Babylon by Calisthenes, concerning the series of astrono-

mical observations preserved by the priests in the temple of Belus,* and reaching back for a period of 1903 years from the time of its conquest by Alexander. Now Alexander's invasion of Babylon happened about the year, before Christ, 330, which makes the period, when those observations commenced, to have been little more than a century after the flood. They were written or engraved on bricks, burnt in the sun, which was probably the earliest rude tablet of the graphist, though afterwards he committed his thoughts to the more durable substance of marble, brass, and copper. Thus, according to Josephus, if any confidence can be placed in his report, the Pillars of Seth recorded the prediction of an inundated world; the stupendous sculptures, on what are called the *written mountains* of Arabia, are referred to ages of the most remote antiquity; the triumphs of Sesostris were blazoned, in every country which he conquered, on columns that seem to have been inscribed at once with alphabetic and hieroglyphic characters; and the Hebrew decalogue itself was engraved on two tables of stone. The Indians used all these methods of conveying their ideas to posterity. Inscribed pillars and engraved copper-plates have been discovered in every quarter of the empire; but

* Porphyr. apud Simplicium in Aristot. de Cœlo, p. 123.

the tablet in most general request among them has ever been the dried leaf of the palm-tree, many of which are fastened together, in long slips, and compose those books in which the sublime productions of the Indian muse have been for so many ages preserved. Diodorus farther informs us, in proof of the early cultivation of Assyrian letters, that Semiramis caused inscriptions, in the Syriac character, to be cut deep on the mountains of Bagisthan, and what, if the account can be depended upon, is still more to our purpose, that, on her meditated expedition *eastward*, she received *letters* written to her from an ancient King of India.*

To return from the consideration of the object inscribed to the letter designated.—The general conformity of the most ancient Sanscreeet character with the square Chaldaic letter in which most Hebrew books are written, has been already noticed. Walton, in the Prolegomena to his Polyglott, has, in various instances, remarked the striking similarity between the old Hebrew and Persic dialect; and, in truth, Sir William Jones, in his Dissertation on the Persians, has confirmed all that Walton advanced on the subject, by avowing that the ancient Iranian, or Persian, and the Sanscreeet languages are, in their original, the same;

* Diod. Sic. lib. ii. p. 127, 129.

“that hundreds of PARSI nouns are pure Sanscreeet, with no other change than such as may be observed in the numerous vernacular dialects of India; that very many Persian imperatives are the roots of Sanscreeet verbs; and that even the *moods* and *tenses* of the Persian verb-substantive, which is the model of all the rest, are deducible from Sanscreeet by an easy and clear analogy.”* The president farther intimates towards the close of this dissertation, that the language of the first Persian empire, which he proves to have been Cuthite, and governed by Cuthite princes, of whom Belus was the head, and the history of all of whom was carried, with the colonies migrating eastward, to India, was the mother tongue of the Sanscreeet, and consequently of the *Zend* and *Parsi*, as well as of Greek, Latin, and Gothic; that the language of the Assyrians was the parent of the Chaldaic and Pahlavi; and that the primary Tartarian language, also, had been current in the same empire.† This having been the case, and the fact being proved from an authority so high and indisputable, can we wonder that the history of the ancient world, in the early post-diluvian ages, as detailed by Moses, should

* Asiatic Researches, vol. ii. p. 51.

† Asiatic Researches, vol. ii. p. 64.

be so well known to the ancient Brahmins, who used, both in speaking and writing, the same language with the patriarchs, and in their sacred books treasured up all the traditional dogmas and sublime theology of the Noachidæ. The allegorizing spirit of their descendants has, indeed, obscured its brightness and defiled its purity ; but, tear off the mythologic veil, and between the Hebrew and Indian legislators a marked resemblance, in many material points, may be traced.

Thus deduced from various sources, and flowing through various channels, the stream of argument carries us back to the central point whence we originally set out ; that of a *primæval language*, universally prevalent among the early branches of the family of Noah, and diffused with the first colonies through the habitable world ; but, in the course of ages, as new events arose, as new governments were formed, and as new ideas poured in upon them, undergoing such material alterations and modifications, as scarcely to leave any vestige of its origin remaining, except the radices of some principal words in every dialect of it, by which the relation of the *secondary* to its primary tongue may be faintly recognized.

I have hitherto attended solely to alphabetic writing ; to letters as the symbols of sound, not

to those of the hieroglyphic kind, which are properly the symbols of ideas and objects. The latter appear to have no connection with the Indian alphabet, whatever they may have with that of the old Egyptians or that of the present Chinese; the only people, besides the Japanese and Mexicans, who now make use of so complicated a system of conveying their ideas and perpetuating their sentiments. On the consideration, therefore, of that particular class of alphabet, there is no occasion that I should enter in any detail, yet, upon this subject, I cannot avoid remarking, that, if the hieroglyphic and symbolic character, used by the Chinese, be no proof of their descent from the Egyptians, upon which ground M. de Guignes founded his arguments for such descent, by the same line of reasoning the hypothesis that makes them the descendants of the Indians, is very considerably weakened, if not wholly subverted. For, is it possible, that during the gradual migration of their tribes eastward, and at that early period, when the Sanscreeet flourished in its full vigour, they should have lost all remembrance of their native tongue, either the vulgar Sanscreeet dialect, or the elegant and polished Devanagari; and should have adopted, in the room of an alphabet already elaborately formed, and justly distinguished for its comprehensive utility, its

refined correctness, and the beauty of its arrangement, a vague and prolix system of symbolic characters composed of the forms or detached parts of the forms of animals and objects, inconceivably intricate in their combinations, and infinitely diversified in their number and signification? I am aware however that some learned men have endeavoured to fix a hieroglyphic stamp on many letters of the Hebrew, Arabian, and other Eastern alphabets; as for instance, that in the Aleph, which signifies an ox in Phœnician, is represented the head of the ox; the Beth, which, in the Hebrew, imports a house, the figure of such houses as are to this day used in Palestine-Syria, the foundation, the wall, and the flat roof; Gimel, the camel, whose tall figure, and long and curved neck, the form of that letter appears to represent; and, in the letters of the Arabian alphabet, the arms and implements of the tent of the ancient Arab-shepherd, as his drinking-cup, his hunting-horn, his battle-axe, &c. but all these suggestions are rather fanciful than just.

With respect to the Chinese themselves, once so proudly vaunted as the masters of Asiatic science, were it not for the high respect due to the decision of Jones, who assigns them an Indian descent, I should be inclined, on this subject still to adhere to the system of M. De

PAUW, who strenuously contends that the Chinese are the lineal offspring of the ancient Tartar race, who descended, in wild clans, from the steeps of Imaus, into the fertile plains of this more benign region, and consider the great resemblance instanced in the *thin beards*, *small eyes*, and *flat noses*, of the two nations, as evidence nearly incontrovertible. Another important objection seems to offer itself in the total difference of the structure of the two languages of China and India; the former consisting principally of *monosyllables*; that of the Brahmins abounding with words of many *syllables*, and delighting in compound epithets that often run through half a page.

To the preceding general remarks on Asiatic languages, I shall now subjoin such particulars, concerning the Sanscreeet alphabet and language, as may be sufficient to afford the reader a proper conception of them, without entering into the wearisome and disgusting minuteness of a grammatical disquisition. The term Sanscreeet, according to Mr. Wilkins, is compounded of the preposition *san*, signifying completion, and *skrita*, finished. It means, therefore, a language exquisitely refined and polished: but this must have been the effect of the unwearied diligence, and predilection for their native tongue, of the Brahmins; for, it could not have

been, in the first instance, when it bore a near resemblance to the square unadorned Chaldaic character. It is also, we have just observed, a very compound language, and delights in polysyllables.

The most ancient Phœnician letters, introduced into Greece by Cadmus, were but sixteen in number; about the period of the Trojan war, four more letters were added by Palamedes; and, many years after, Simonides, by adding four others, completed the Greek alphabet. The amount of the Egyptian alphabet, according to Plutarch, was twenty-five; and that of the Hebrew is twenty-two. But the Sanscreeet alphabet apparently exceeds, in the number of its letters, all that ever were formed, consisting of no less than fifty. Of these, thirty-four are consonants, and the remaining sixteen are vowels. The Brahmins glory in this uncommon copiousness of the Sanscreeet alphabet; but, after all, there is no solid reason for this triumph: of their numerous consonants nearly one half are said to carry combined sounds, and six of their vowels are merely the sorrespondent long ones to as many that are short; which reduces it nearly to a level with the other alphabets of the ancient world. Copious and nervous as the Sanscreeet is allowed to be, the style of the best authors is still extremely

concise, sometimes even to obscurity ; hence the innumerable sastras and commentaries on all their sacred and scientific books ; and hence, it may justly be added, the unbounded influence of the Brahmins, who explain them as they please to their ignorant, but devoted, followers.

The four VEDAS, it is well known, are the great store-house of Sanscreeet learning. They are said originally to have been but *three* in number, the fourth being supposed to have been composed in a period many centuries later than the other three. The argument advanced on this subject, in the Asiatic Researches, is two-fold. The first arises from the very singular circumstance of only *three Vedas* having been mentioned in the most ancient and venerable of the Hindoo writers ; and the names of those *three Vedas* occur in their proper order in the compound-word *Rigyajushama*, that is to say, the *Reig Veda*, the *Yajush Veda*, and the *Saman Veda*. The second argument is drawn from the manifest difference in the style between the fourth, or *Atbarvan Veda*, and the three before named. That of the latter is now grown so obselete as hardly to be intelligible to the Brahmins of Benares, and to appear almost a different dialect of the Sanscreeet, while that of the former is comparatively modern,

and may be easily read, even by a learner of that sacred language, without the aid of a dictionary.*

The date of these venerable books goes so far back into antiquity, and that date is so well authenticated, that with every respectful deference to the opinions of those worthy and pious writers who contend that ALPHABETIC LETTERS originated with Moses, when he received from God the *Table of the Decalogue*, I am unable to subscribe to that opinion, though I most readily admit the language, in which that decalogue was written, to have been the oldest in the world, and probably imparted to man by inspiration, but at a much *earlier* period. I am bound faithfully to represent, so far as yet unfolded, the Hindoo sciences; and, on this subject, I must fortify myself with the observation of Sir William Jones, whom nobody will accuse, any more than, I trust, myself, of intended disrespect to the high character and functions of the Hebrew legislator, but who has declared it to be his firm belief, arising from both internal and external evidence, that the three prior Vedas are above three thousand years old;† and, to the YAJUSH VEDA, in par-

* Asiatic Researches, vol. i. p. 346, 347.

† On the Antiquity of the Indian Zodiac, in Asiatic Researches, vol. iii. p. 289.

ticular, he assigns the possible æra of 1580 years before the birth of Christ, which is ninety years prior to the birth of Moses, and ninety before Moses departed from Egypt with the Israelites.* The first promulgation of the Institutes of Menu, he thinks, was coeval with the first monarchies established in Egypt or Asia; and he remarks a strong resemblance of them, in point of style and grammatical construction, with the VEDAS themselves. I shall not enter farther into the question, but leave every man to form his own opinion on the subject; and proceed to the consideration of what, by the industry of our learned countrymen, has been gleaned from those precious fragments of ancient Indian literature.

* On the Antiquity of the Indian Zodiac, in Asiatic Researches, vol. v. p. 4.

HAVING already, in various parts of these volumes and the Indian history, treated concerning many of the arts and sciences anciently most cultivated in Hindostan; in particular their style of ARCHITECTURE, when discoursing on the pagodas; their skill in SCULPTURE, when examining the figures of Elephanta; having given the entire history of their progress in NAVIGATION, in an express dissertation on that subject, so interesting to Britons, in the Sixth volume of these Antiquities; having, also, in the Commercial Dissertation, considered their MANUFACTURES, and the arts more immediately connected with the beautiful productions of the Indian loom; I conceive my duty to the public, on this point, already in a great degree fulfilled. Their literature and sciences open an immense field for discussion, and materials for the full investigation of them are still among the Indian *desiderata*. I request, therefore, in a particular manner, the exertion of the reader's candour in perusing the following Dissertation, as the mine of Sanscreeet literature has been hitherto but

little explored; though I rejoice to hear there are rising in India many able and willing candidates for that arduous employ.

GENERAL PHYSICS.

In all retrospects upon Indian science and history, it will be observed that an uncommon degree of natural history is blended with it; and, in fact, their mythology is a compound of physics and metaphysics. Extensive, therefore, as have already been our disquisitions on that mythology, occasional references to it can with difficulty be avoided, because, in fact, there is scarcely an art or science which has not its respective *numen* presiding over it, who is supposed to direct the labours of the artists and the researches of the scholar. Even their theological speculations are, in a great degree, founded upon what they observed passing in the physical world. They saw a direct tendency in nature to dissolution; they therefore fabricated a *destroying deity*; but, as they also observed a power in nature capable of counteracting that tendency, the same fertile imagination, in consequence, conceived a *preserving deity*, his enemy and antagonist. Hence, probably, the true source of that rooted enmity immemorially

subsisting between the followers of Veeshnu and Seeva. Every element is, in fact, a personified God ; the minerals of the earth, and the corals of the ocean, have their guardian genii ; and a subtle spirit pervades and presides over even the humblest tribes of vegetation.

Much as hath already been said on the subject, yet, as it is ever a prominent object in Oriental literary research, I commence my inquiries with renewed investigations and summary retrospect upon their system of

ASTRONOMY.

I have ventured, in various parts of the two works before the public, to give a date to the Brahmin system of Astronomy nearly coeval with the flood ; because, in whatever aboriginal country their ancestors were settled, whether in Chaldæa or Iran, that science was absolutely necessary to a race of men who seem, from the earliest times, in a peculiar manner to have devoted themselves to agricultural concerns ; to a race not “fleshed in blood,” or wandering wild over immense deserts, like the savage tribes of Scythia, but who, from their origin, seem to have associated in affectionate tribes, and been united by the strictest bonds of domestic inter-

course; a race who, for the most part, exist entirely upon the grains and fruits which the cultivated earth abundantly produces, and therefore must of consequence be supposed intimately acquainted with the *times* and *seasons*, the result of astronomical observation, most proper for that cultivation. I considered that system as containing a considerable proportion of ante-diluvian astronomy, concerning which, though all that can be advanced must be allowed to be nothing better than ingenious conjecture, yet, since the Indian nation seem always to have adhered so closely together as a people, and since Budha is said to have married ILA, Noah's daughter, it is most probable, that, among them, the remains of the ante-diluvian sciences flourished in a more perfect degree than among the other widely-dispersed branches of his family.

I have also strenuously contended for the existence of an older sphere, containing certain obsolete asterisms at present not to be found in the catalogue of modern constellations, as the Phalæna, the *wandering moth of night*; the Succoth Benoth, or *ben and chickens*; the Oblation, and others, alluded to by Mr. Costard in his Chaldæan Astronomy.*

The devotion of the Indians to this favou-

* Costard on the Chaldæan Astronomy, p. 67.

rite science, in the earliest periods, is farther proved by its intimate connection with the history of their most ancient sovereigns, who seem all to have been a kind of planetary deities; and the reign of the king and the revolution of the orb, as has often been before observed in these pages, to have been perpetually confounded in their wild mythological records. Hence I was induced to consider the sphere itself as formed by the united wisdom of the Patriarchs, exhibiting to us a rich volume of hieroglyphics, (the only mode of designating objects and ideas in those remote æras,) having an immediate allusion to the characters and events of the greatest importance to mankind; and consequently in a high degree illustrative of the history of man in the infancy of human government. Astronomy, indeed, could scarcely fail of flourishing in the highest vigour during the remotest periods in India as well as throughout all Asia, in consequence of the decided patronage afforded that science by Eastern sovereigns. From the foundation of their respective empires, the kings of Chaldæa and India cherished and entertained in their palaces the wise men and philosophers of their realms; and it must be owned, in return, that astronomical priests have in all ages been found too susceptible of royal favour, and have been

but too grateful in repaying their kindness, by flattering them with titles and honours more than mortal.

With respect to the ancient Indian astronomy, it is a vast system of *cycles* ascending by no very regular gradations from their SOOKLA-PAKSHA and CREESHNA-PAKSHA, or the *dark* and *bright halves* of the moon's orb; that is to say, in plain English, a *fortnight*, to millions of revolving years, lunar and solar, infinitely diversified, and alternately calculated by the rules of terrestrial and celestial computation. It is an endless labyrinth, to which the Brahmins themselves, from the lapse of time and the decay of science among them, seem at present to possess but a very uncertain clue; but, through which, as authentic information has hitherto arrived in Europe, we have already in great part toiled in the first volume of Indian history.

Whosoever will cast his eye upon a Hindoo sacred calendar will perceive a most decisive proof, how incessantly, in the most ancient periods, the Brahmin priests must have watched the motions of the heavenly bodies. All the long train of fasts and festivals rigidly prescribed that superstitious nation, in the *VEDAS* and other sacred books, is regulated by the position of particular planets in the heavens,

and the consequent benevolent or malignant aspects imputed to them by the mad votaries of astrological science, which then held in chains many of the wisest and most virtuous of mankind.

It will also be remembered, that the obligation to observe these rigid fasts and these ever-returning festivals was of no slight nature. The tremendous superstition that enjoined them on the timid Indian was implanted in his inmost soul, or rather was inwoven with his very constitution, engrosses the earliest habits of his life, and continues its influence over his latest. For even the most casual omission of the minutæ of that holy ritual, he hears the thunder of Scēva rolling to overwhelm him; or, what is not less dreaded than the wrath of heaven, he sees himself reduced to the forlorn condition of a Chandelah, or outcast, to whom the elements themselves are hostile, and for whom neither heaven nor earth have any place of safety or repose. The baneful effects of this entire devotion of the Hindoos to the ceremonious injunctions of their religion are often recorded in the page of their history. Undertakings of the highest national importance have been abandoned, for some idle punctilio of this kind, at the instant when success seemed indubitable; and the Mahommedan generals taking advantage

of some, to them auspicious, day, when the Hindoo religion forbids the use of arms, have marched unresisted into their most wealthy and best fortified cities. Sonnerat, in particular, expressly asserts this fact concerning the AIDU POOJA, or *feast of arms*, which falls in October, and is holden so sacred, that, on the day of its celebration, the Hindoo will not take up arms to defend himself. He adds, that the general of the Soobah of the Deccan, who besieged Gingy, chose that day for the assault, being persuaded the garrison would not defend the place on that day, and he actually entered the garrison without meeting the least resistance.*

We have seen in Vol. VI. in what very remote periods the Indians had navigated the great ocean, since in the "Institutes of Menu," written twelve hundred years before Christ, provision is made for losses incurred by adventures at sea; and the circumstance of its being thus particularly mentioned, in a part of the grand legislative code, proves the antiquity of the commerce as well as the danger attending it. Now it is impossible for navigation to be carried on, to any extent, without a knowledge of astronomical science. A correct knowledge of the position in the heavens of certain stars,

* Sonnerat's Voyages, vol. i. p. 135, Calcutta edition.

uncommonly brilliant, with respect to the earth, was absolutely necessary to the mariner in directing the course of his vessel over the trackless ocean, whether to the shores of Egypt or Arabia, which countries, by the aid of the monsoons, they seem immemorially to have visited ; the former, for the purpose of vending to that luxurious people the rich commodities of India ; the latter, for those costly spices and aromatics which were foreign to their own delicious climate.

In farther proof of their early proficiency in astronomy, or rather that many interesting branches of that science originated among them, may be urged, what has already been intimated in the first volume of the Indian history, the circumstance of their being in possession of a table of LUNAR MANSIONS, in number twenty-eight, a mode of dividing the heavens unknown to the Greeks, and which, therefore, could not be borrowed from them. All the names of the asterisms, and all books on this subject, are written in pure Sanscree, and consequently must have been long anterior to the age of Alexander, when its purity had declined. Their mode of designating these lunar mansions is by objects and animals perfectly novel and original, and in the Hindoo style ; Indian conqu , saffron, tabors, heads,

of antelopes, gems, pearls, &c. The planets in their system, we have seen, are all personified, and invested with appropriate dresses and symbols, and are represented riding on animals, characteristic of their slow or rapid revolution in the heavens. Thus, it has been observed, the Sun is mounted on a lion, to mark the ardour and fierceness of his beam; the Moon on an antelope, to denote the rapidity of her progress; Mercury on a hawk, a bird whose soaring wing explores the highest region of æther, while its undazzled eye gazes stedfastly on the orb of day, shining in meridian splendour; Mars armed with a sabre, is borne on a war-horse through the heavens; Venus, the radiant harbinger as well of the opening as of the closing day, is mounted on a camel, an animal patient and indefatigable, that pursues his unwearied journey over trackless deserts and burning sands, early and late, before the sun rises, and after it has declined; Jupiter rides on a boar, a slow and sluggish animal, the emblem of his tedious revolution; and Saturn measures round the circumference of his vast orbit exalted on the back of a heavy unwieldy elephant. But of Saturn, or SANI, as in the old Sanscreeet books he is denominated, there occurs in that system a very curious circumstance not

mentioned before, and which deserves the marked attention of the astronomical student.

Sani has already been described, from Sanscreeet authorities, as a malignant planet, and he is metaphorically represented as the *slow-moving child of Surya, the Sun*. The Indians entertain dreadful apprehensions concerning him, and offer to him conciliatory prayers. He is depicted of a blue colour; he has four arms; he is mounted upon a raven; and is surrounded by two serpents, whose intertwining bodies form a circle round him.*

I have already intimated in a former volume, that the *circle* formed around SANI, by the intertwining serpents, was probably intended to denote his RING. I have since had the figure engraved for the reader's inspection and decision. It is impossible to ascertain the exact age of the pictured image in the pagoda from which the portrait was taken; but probably both are of a very remote age; for, the Indian pagodas are not fabrications of yesterday, nor in their conceptions and designs are they given to frequent vicissitude. Now, if Sani were thus designated in very ancient periods, the fact proves that they must, by what means can scarcely be conjectured, have discovered the phenomenon

* Sonnerat's Voyages, vol. i. p. 63.

of his RING ; for, what besides could that serpentine oval, enclosing the body of Sani, be intended to represent ? That phenomenon, however, was not known in Europe till about the year 1628, when Galileo, with the first perfect telescope, discovered what he conceived to be two stars at the extreme parts of the planet ; but which, in reality, proved to be the ANSÆ of that ring, the actual existence of which was afterwards demonstrated by Huygens and succeeding astronomers. The circumstance is not the least wonderful of those that occur in the discussion of Indian antiquities and literature. I have stated the fact, and engraved the image ; I leave to abler judges the task of decision.

There is no occasion, however, to trouble the reader with farther *conjectures* on the high proficiency in astronomy of the ancient Brahmins, since indubitable proofs of their rapid advance in that science are to be found in the most ancient pagodas of Hindostan, all placed with such astronomical precision, as with their four sides constantly to face the four cardinal points. These were examined and found to be exactly thus situated by M. Gentil ; and in this circumstance they resemble the pyramids of Egypt, probably the work of the same artificers ; for, a variety of facts tends to strengthen the

hypothesis, that Egypt, or *Misra-sthan*, was colonized by the first Indians. On the roofs too and walls of many of these pagodas are deeply engraved the zodiacal asterisms. Various sets of their astronomical tables, of a very ancient date, imported into Europe by learned foreigners, have been deliberately investigated, and proved to give the true aspect of the heavens, and position of the stars, about the period they were formed. The tables of *Tirvalore*, in particular, brought to Europe and published by M. Gentil, merit the most attentive consideration. For, the grand conjunction which those tables tend directly to establish, of all the planets, except Venus, in the first degree of MESHIA, or ARIES, with which their celebrated æra of the CALI YUG commenced, has been found, upon the calculation of the ablest astronomers of Europe, to be true, with the addition of an eclipse of the moon, from which their astronomical time is dated.* On an actual retrospective survey of the heavens, it appears that Jupiter and Mercury were then in the same degree of the ecliptic; that Mars was distant about eight degrees, and Saturn seventeen; and it results from that survey, that, at the time of

* Le Gentil, Voy. tom. i. p. 133. Bailli's Astronomie Ind. p. 110.

the date given by the Brahmins to the commencement of the Cali Yug, they saw those planets successively disengage themselves from the *rays of the Sun*. This is the representation of M. Bailli, that profound and accurate, though in points of theology, *sceptical*, astronomer; confirmed, in every instance, by the still more elaborate calculations of the learned Mr. Playfair, professor of astronomy at Edinburgh. While the romantic and extravagant boasts of the Brahmin chronologers, in respect to the epoch of creation, remained unrefuted, I *hesitated* to admit this decision of M. Bailli as valid evidence; but the nature of their wild chimeras in astronomy having been since frequently explained in the Asiatic Researches, and it being now well understood by *what kind of years* their calculations were regulated, I am willing to give every due credit to the laborious and learned researches of that profound astronomer, sacrificed to the guillotine by his perfidious countrymen. It is a circumstance not less astonishing, than this its early maturity in Hindostan, that so little genuine astronomy should at this day flourish in that degenerate country; and that the modern race of Brahmins should regulate their astronomical studies by the *rules*, without knowing the *principles*, that guided their

ancestors in cultivating this sublime branch of ancient literature.*

The epoch of this celebrated æra of the Cali Yug, which, according to M. Bailli, answers to midnight between the 17th and 18th of February of the year 3102 before Christ, thus scientifically adjusted by learned Europeans, may be admitted, because within the limits of the chronology of the sacred books that ought to regulate our belief in these matters; for, the first of February, 1790, exactly corresponded to the year 4891 of the Hindoo period of the Cali Yug; consequently above a thousand years within the Mosaic æra of the world. But there is no necessity for our allowing a similar latitude to wild speculations in that science which directly militate against it; and this is evidently the case when these tables refer us to observations pretended to be made when, according to them, the solar year consisted of 365 days, *six* hours, twelve minutes, and thirty seconds. In the time of Hipparchus, near two thousand years ago, that year was computed at 365 days, *five* hours, forty-five minutes, and twelve seconds. From Hipparchus, to the age of Ptolemy, the alteration in the length of the year was noted by the latter astronomer; and, from

* See Mr. Playfair on the Brahmin Astronomy, in *Philosoph. Transact. Edinburgh.* vol. ii. p. 136.

Ptolemy to our own, the decrease has been still more regularly observed. By European astronomers of the present day, it is reckoned at 365 days, five hours, forty-eight minutes, and fifty-five seconds. "Hence it would appear, (says an ingenious modern writer,) that there is a gradual decrease in the length of the year; and, if these calculations can be relied upon," (which they certainly cannot,) "we must conclude that the earth approaches the sun; that its revolution is thereby shortened; and that the tables of the Brahmins, or at least the observations that fixed the length of their year, must have been made 7300 years ago."* Retrogressive calculations have been probably made to suit that distant period, but certainly not actual observations; since it ascends far beyond even the Septuagint date of the creation, which, as the most extended, I set out with adopting, and the possibility of the advantage of the scientific exertions of the antediluvians; which, to obviate the objections of the sceptical philosopher, I have ever been willing in a certain degree to admit of, in the extensive survey taken, in these volumes, of the literature of their earliest post-diluvian descendants.

While I am bold to affirm that these are the chimeras of astronomers, I will not shrink

* Sketches of the Hindoos, p. 216. 1st. edition.

from my duty as the historian of the literature of India, by presenting the reader with an account of some actual observations, made in the most remote æras, that can scarcely fail of exciting astonishment, and *may* strike some prejudiced minds with disgust, as if on this subject, not less than the date of alphabetic writing in India, I was determined to oppose all established opinions concerning the origin and the progressive advance of science in the East; but, *magna est veritas, et prævalebit*. The evidence is of high authority, and deserves every credit; and let it be remembered that we are discussing the literature of one of the highest and most illustrious branches of the family of the father of the renovated world.

Passing by the age of Greek fable, Atlas, Chiron, and Musæus, the mere offspring of imagination, the oldest authenticated Greek observations of the heavens extend no farther back than the age of Thales, about 600 years before Christ; and these may be well supposed in that infancy of the science, extremely rude. Instructed in Egypt, that prince of philosophers taught the Greeks the true time of the EQUINOX and the exact length of the tropical year. Anaximander flourished about fifty years afterwards, and is said to have first made that important discovery, the OBLIQUITY OF THE ECLIPTIC.

But all this extent of science must have been well known to the Brahmins at least 600 years before ; for, the Indian annals, made with the requisite precision, record an actual observation, that absolutely fixes the exact places of the solstitial points and the equinoctial colures, in the twelfth century before Christ ; and it was by this observation that Sir William Jones was enabled to fix the age of Menu's Institutes to the same century.*

From a text of Parasara, an ancient Indian astronomer, which records the observation, it appears, that, between the period when he flourished, and Varaha, a more recent astronomer, who confirms it, and lived in the year 499 of the Christian æra, the equinox had gone back $23^{\circ} 20'$; that is to say, the southern solstice, which, in Parasara's time, was in the middle of ASLESHA, a lunar mansion, denoting the stars in the face and mane of the Lion ; and the northern in the first degree of DHANISHTHA, a lunar mansion, meaning the stars in the arm of Aquarius ; were found, in Varaha's age to be the former in the first degree of CARCATA (Cancer), and the latter in the first of MACARA (Capricorn) ;—in other words, about 1680 years had elapsed ; and since, in demonstrative proof

* Sir William Jones in Asiatic Researches, vol. ii. p. 393 : London, quarto edition.

of all this Sir William Jones has taken the trouble to present us both with the original Sanscreeet text, and an exact literal translation of that text, not the least doubt can be entertained of the truth of a statement which does so much honour to the learning and industry of the ancient Hindoo race.

The doctrine of the seven revolving spheres through which the transmigrating soul must migrate before it can reach the abode of the supreme Brahme; the circular dance of the Brahmins, recorded by Lucian, and called, in India, the RAAS JATTRA, or sacred dance imitating the revolution of the planets round the sun; the positive assertion of Sir William Jones, that the works of the sage ACHARYA include a system of the universe founded on the principal of *attraction*, and the *central* position of that orb; and, also, that the names of the planets and zodiacal stars are found in the oldest Indian records;* afford abundant proof, that, if the ancient Indians were not absolutely the inventors of astronomy, they at least had arrived, in the earliest post-diluvian periods, at an unexampled point of excellence in that wonderful science. But having, in the first volume of the history, when considering the Indian sphere and zodiac, entered very

* Asiatic Researches vol. i. p. 430:

much at large into this subject ; having shewn the striking similitude between the Chaldæan and Indian astronomical system, at least in its great outlines ; and having in fact demonstrated that their spheres were the same, with a trifling difference only, in the designation of certain of the asterisms ; it is unnecessary for me to dwell longer on this head of Indian literature. I therefore pass on to a subject very deeply connected with it, and in any advanced state of the science absolutely necessary to it.

G E O M E T R Y.

On the commencement of the Geographical Dissertation,* I had occasion to observe that the science of Geometry was, in all probability, invented in India. One reason urged by me in support of the observation, but by no means the strongest that may be adduced, was the frequent and wide overflowing of the great Indian rivers, not only of those regions where vast Deltas have been formed at their place of ingress into the sea, but of those in the more northern latitudes of Upper Hindostan, whose rapid and desolating current, rushing down from the Hindoo Caucasus, bore away the boundaries of the land they were meant to divide, and

* See Indian Antiquities, vol. i. p. 1.

confounded the property of the natives. The Nile over-spreads Egypt with a gentle and gradual advance of its fertilizing waters, but the rapidity and overwhelming violence of a torrent pouring down from Paropamisus, the Gauts, and other high mountains in various regions of India, would not fail to beat down and obliterate every barrier which man, in the infancy of agriculture, could erect against its rage; and, as the first settlements of his race doubtless took place in the Higher Asia, and nearest the region where the ark rested, I consider the long-contested question, whether the Indians or the Egyptians were the first inventors of this science, to be in consequence very much in favour of the former. But a stronger and still more conclusive argument, in favour of the latter position, seems to be the impossibility of otherwise exactly proportioning the rate after which every individual zemindar, or land-holder, was equally in the most early and the most recent periods of the Indian empire assessed, and which universally depended upon the quantity of ground possessed and cultivated by him. The ancient classical writers assert, that the tax paid to the government in India was the *fourth* part of the produce of the soil; but, upon Sanscreeet authority, near two thousand years old, I can assert that it was at that

period, and probably previously to it, the *sixth* part only of that produce; for, to that purport, in the *Sacontala*, does the Emperor Dushmanta decisively express himself.* Similar accounts, I am aware, may be found in Herodotus and Diodorus Siculus concerning the mode of collecting the tribute in Egypt; but, throughout this work, both Egyptians and Ethiopians are considered as an emigrated race, originally Indians, and to the parent country, therefore, when customs are so strikingly similar, the honour of invention cannot with justice be denied.

As the Egyptians had with immense labour dug the vast lake Mœris, and other ample reservoirs for the waters of the retiring Nile against the period of drought; so also have the ancient Indians formed, by the nicest rules of geometrical proportion, in every quarter of their empire that required it, *square* tanks of prodigious magnitude for the same purpose. In their stupendous efforts in architecture particularly, the triangular pyramid, the circle, the square, and the cone, for ever occur in the internal or external parts of their temples. And by what means was it possible for such ponderous stones, as, for instance, those that crown the summit of the grand portal of Chillambrum, forty feet long, and five broad, to be raised to

* *Sacontala*, act. v. p. 53.

the altitude of one hundred and twenty-two feet, but by the aid of geometry joined to mechanics? From what other source has it arisen that the amazing colossal carved work and images in Salsette and Elephanta, of stupendous antiquity, are executed according to the rules of such just proportion as they are represented to be by Mr. Hunter and others who have accurately examined them? and that such lofty columns, richly adorned with mythological sculptures, are seen elevated to a vast height in every province of Hindostan? In respect to astronomy, it was absolutely necessary that they should be possessed of a very ample portion of geometrical skill to fix so precisely, as they have, the position of their pagodas in order that their four sides should face the four cardinal points; pagodas, many of them erected in the remotest periods of their empire; and to form those ancient astronomical tables mentioned above which have so highly excited the astonishment of the literati of Europe.

It was long supposed that the ten numerical characters of ARITHMETIC were the invention of the Arabians: that nation, however, only introduced them into Europe, and confess themselves obliged to the Indians for them, among whom they were immemorially used. A nation, indeed, so devoted to commerce, as

the Indians, could not carry on their concerns without this aid ; and, while the polished governments of Rome and Greece were awkwardly using, for the purpose of enumeration, the letters of the alphabet, this wise and ingenious people, by the invention of the figures in question, were performing, with the utmost facility, the most complex calculations. Indeed, their adroitness in this respect has often been the admiration of foreigners, as a Banyan merchant, by the operation of memory only, and without pen or paper, is said to sum up his accounts with the greatest accuracy ; and even the vulgar Indian, with his fingers, drawing the symbols of arithmetic in the sand, will go, with ease and celerity, through the most intricate numerical details. The art of ready computation was essentially necessary where the property was so various, where the annual revenues both of the sovereign and of many individuals among his subjects were so immense, and where such accuracy was necessary with respect to the *number, weight, and measure*, of the commodities trafficked in. Connected with geometry and arithmetic is the invention of the *balance*, a symbol early exalted to the zodiac by the Brahmin astronomers, and in all likelihood also the product of the genius of this commercial people. The advance of the

ancient Indians in mechanic science of every kind must, for the reasons above-mentioned, have been very early and very great ; and, in fact, like the venerable fabricators of Stonehenge and Abury, they seem to have been in possession of some secrets in that science which have not been transmitted to their posterity.

The same species of injustice that would rob them of the honour of inventing the decimal scale, the Indians appear to have suffered in regard to ALGEBRA, which, though long attributed to Arabian ingenuity, is the undoubted fruit of Indian genius ; for various treatises on this useful science, as well as geometry, are alluded to in Sir William Jones's Dissertation (the last which he wrote) on the Philosophy of India ;* and, being in Sanscreet, they must necessarily be of an age far anterior to that of Archimedes, the great practical geometrician of Greece. With respect to the substance of these treatises, that is still among the Indian desiderata ; though probably this will not long be the case, if Mr. Davis should fortunately have health and leisure to pursue the peculiar line of study which he has chosen for his province, and by which he has already been

* Asiatic Researches, vol. iv. p. 178, London, quarto edit.

enabled so successfully to elucidate the abstruse mathematical sciences of the Brahmins.

The great advance, also, which we shall hereafter see the ancient Indians had made in music, a science in which sounds are expressed by lines or chords accurately divided and arranged according to geometrical rules, exhibits an additional proof of their progress in this species of necessary knowledge. But what most of all proves their attachment to this science, as well as their exalted opinion concerning it, is, that, in their mysterious and hieroglyphic theology, they were accustomed to apply the figures and characters used in it to illustrate their ideas of the sanctity and perfection of the Deity. They transferred their geometrical speculations from body to spirit; and, from measuring terrestrial objects, they attempted to define subjects immeasurable, infinite, eternal. They compared the Deity to a CIRCLE, that most perfect and comprehensive of all mathematical figures, whose centre is every where but whose circumference is nowhere to be found; and in allusion to the ancient doctrine of a certain *plurality*, which it has been demonstrated in preceding pages they believed to exist in the divine nature, they designated it by the expressive symbol of an equilateral TRIANGLE. Hence the winged globes

that decorate the front of all the Egyptian temples, and the triangular columns in memorial of their sacred triad, at the entrance of most of the Indian pagodas.

M E D I C I N E.

To a minute investigation of the peculiar virtues and qualities contained in certain plants and herbs, the old Indians were naturally incited by the vast variety and beauty of those innumerable vegetable productions that cover the face of that fertile region. These in many places grow up spontaneously; many, applied to sacred uses, the ministers of religion reverently cherished; and many the hand of traffic diligently cultivated for exportation. Her rich spices and aromatics of every kind, her costly gums, and fragrant nards, of sovereign efficacy in the healing art, exceed all calculation in number and value.

Their beauty, number, and variety, indeed, could not fail of being most attentively marked by a race, who lived almost wholly in the open air; who ranged through vast forests, barefoot, in penances and in distant pilgrimages; or resided in delicious groves; and, if the scenes of the *Sacontala* represent them justly, who cultivated in delicious gardens the sacred plants

of *cusa*, *bilva*, the *lotos*, the *sandal*, and other trees, for the service of the temples.

The Brahmins in those ages exclusively professed the medical science; and it was absolutely necessary for those who subsisted on the vegetable productions of the earth to be well informed of the salutary or noxious quality of the roots on which they fed. Their advance in this science, consequently, must have been very gradual: it depended upon long and intense observation of the effect on the human constitution, produced by the different species of herbs and plants cultivated in the garden, or growing wild in the field; and wisdom, in many instances, could only have been obtained by fatal experience. They also sedulously observed the effect of different plants upon animals; and as Melampus, a Greek devoted to the concerns of pastoral life, from observing that goats were purged after eating the bitter root hellebore, administered it afterwards with similar effect to man, and was therefore considered as the inventor of that branch of the science; so, doubtless, the Brahmins, in the boundless forests of India, were guided to the use or rejection in physic of the various vegetables that spring up spontaneously in that more exuberant soil.*

* “ The ancients inform us that the vulnerary virtues of dittany were first learned from the stag; Plin. l. xxv. c. 53. Theophrast, l. xi. c. 16.—That the same animal purges

The venomous tribes of reptiles, beautiful but baneful, that lurk amid the luxuriant vegetation itself by means of seseli ; Aelian, l. xiii. c. 50.—That men learned that the ligneous part of cassia was laxative from the ape ; Fallop. Purg. Simplic. 35.—That the mungouse, a species of ferret, eats a certain root, after which he attacks the serpent with impunity ; Kämpfer. Exot. Fasc. iii. c. 10. Auct. Herb. Amb. c. 37, 53. G. ab Orta, l. i. c. 44. et Loch in Diss. On which account it is used in malignant diseases.—That the deer wounds its eyes when they are inflamed with the point of a rush, and the goat with the bramble ; Geopon. l. xviii. c. 18. Plin. l. viii. c. 50. Aelian. l. vii. c. 14.—That the tortoise defends itself against the bite of a serpent by origanum ; Aelian. Anim. l. vi. c. 11.—That the bear, by means of the arum, opens its intestines, almost collapsed during winter ; idem, l. vi. c. 3.—That the same animal licks up ants as an antidote, when poisoned by eating the mandrake ; Plin. l. viii. c. 27.—That jays, partridges, and blackbirds, purge themselves with the leaves of laurel during their moulting ; idem.—That pigeons, cocks, and doves, use pellitory, and ducks and geese stone-crop, for the same purpose ; idem.—That hawks cure their eyes by the juice of the hawk-weed : Aelian, Anim. l. ii. c. 43.—That the serpent casts the skin off its eyes by the application of fennel ; idem, l. ix. c. 16.—That partridges, storks, and wood-pigeons heal their wounds by origanum ; idem, l. v. c. 46.—That, from dogs eating certain herbs, in order to purge themselves, the Egyptians learned the art of purging ; idem.—That from dogs, also, the virtue of pellitory in dissolving calculi was discovered ; Boccone.—That Melampus discovered the purgative quality of hellebore, by observing its effects upon goats.—That deer, when injured by a species of venomous spider, eat crabs to obviate its effects ; Plin. l. viii. c. 10. Aelian. Var. Lect. l. xiii. c. 50. Confer. Haller. Biblioth. l. i. p. 3." — *Lettsom's History of the Origin of Medicine*, p. 88.

of India, by their attacks upon man, added a stimulus to their researches in this walk of science. The bite of some of the Indian serpents is so immediately destructive, that if the herb, benevolently ordained by an all-wise Providence to be its antidote, be not instantly applied, inevitable death is the result. In consequence vigilance was redoubled and experiments multiplied; the plants, injurious or sanative, were classed in a kind of rude order; medical receipts were treasured up in families *memoriter*, and handed traditionally down with scrupulous fidelity from father to son through successive generations.

It is presumed, that the books of medicine at this day in use among the Indians, contain numerous collections of similar recipes; the greater part of which consist of antidotes against poison, in the deadly qualities of which the old Indians are recorded to have been deeply versed, and to have often administered it, though at the same time they well knew how to repel the violence of the most fatal of that class of drugs. The feigned tale of the propensity of the Hindoo women to get rid of their husbands by this infamous method, and consequently of their being compelled from that cause to burn themselves on the same funeral pile that consumed *their* remains, was probably founded on the general persuasion of the ancients in this respect.

The conceptions of the ancients, however, in

regard to the cause of this singular ceremony, were undoubtedly ill-founded; for, women devote themselves, in India, to the consuming flame in consequence of the sublime promises holden out to them for this fidelity, even in death, to their husbands, in the sacred Vedas.* The real origin of the Hindoo law, that permitted the living to burn themselves, and enjoined the burning of the deceased, seems to have been derived, the former from mythology, on the supposition that the transmigrating soul was purified in its passage through the elemental flame; the latter, that it prevented the air from becoming, as might be conjectured, tainted in that burning clime by putrefaction. The Indians had sufficient store of common as well as fragrant woods to perform this ceremony. The Egyptians, on the contrary, whose country afforded but slender supplies of wood, endeavoured, by embalming the dead, to avoid that dreaded evil. This want of timber for building elegant and airy structures was also probably the occasion of giving to their architecture, and, among other buildings, to their sepulchres, that massy and indestructible form, which for so many centuries has resisted, and for as many more perhaps may resist, the united violence of the sun and weather.

* Halhed's Gentoo Code, preface, p. 4.

As the nation at large was deeply interested in this kind of medicinal research, after the invention of alphabetical writing, it became equally the law of Hindostan as of Greece, that remarkable disorders, and their mode of treatment and cure, should be recorded on tablets conspicuously suspended on the pillars of the temple; which, in consequence, every body was able to consult, and regulate by the rules there laid down, the treatment of the malady with which either himself or his family were inflicted. The catalogue, increasing with every age, soon became enormously great. The books which the Hindoos at this day, and the Egyptians anciently, pretended to have in medical science, were probably nothing more than observations and recipes of this kind carefully collected and zealously preserved.

In all operations where incision was absolutely unavoidable, the ancient Indians, doubtless, used for a time, like other nations, instruments made of siliceous substances, to which the ancients had found out a method of giving an edge as sharp as the keenest steel; for, both Herodotus and Diodorus inform us, that it was with an Ethiopic stone the Egyptian physicians opened the dead bodies, and cut out the entrails of those that were to be embalmed; and with

sharpened flints, also, they performed the ceremony of circumcision.*

A considerable portion of the precepts in the code of Indian laws has either an immediate or remote allusion to the health of the four great tribes. Hence their innumerable ablutions, their temperate diet, their various fasts, so proper in a country where perspiration is abundant, where an ardent sun urges and inflames the juices of the blood, and an universal disposition to libidinous pleasure prevails. The priests of Egypt, induced by similar motives, equally forbade indulgence in animal food and wine; the frequently prescribed use of cassia, senna, and other luxative drugs, which are indigenous in that country, checked at once the spreading of the elephantiasis and the fervour of passion exalted by the beams of a tropical sun. Thus the flames that formerly ascended in the Egyptian temples at once purified the air and soothed the deity adored. From the vast lakes and other stagnant waters of the Delta ascended noxious vapours, which the sacred grass, called *κνυφος*, by Plutarch, profusely burnt three times, was intended to disperse. The grass *κνυφος*, of the Egyptians, was possibly the *CUSA* of the Indians, which was ever of the first

* Herodotus, lib. ii.—Diod. Sic. lib. i. p. 101.

note in their herbal sacrifices. Herodotus, who is very ample on this subject, informs us, that the Egyptians purged themselves every month, three days successively, by vomits and clysters, to preserve uninterrupted health.* Their aversion to the rich and rancid flesh of swine, a species of food also strictly prohibited by the Levitical law, and inviolably avoided both by ancient and modern Jews, as well as the entire abstinence of the sacerdotal order from fish, and animals accustomed to feed on fish, is doubtless to be imputed to the same judicious precaution.

I have frequently observed that milk, GHEE, or clarified butter, and rice, dressed and rendered palatable, a variety of ways, by the rich spiceries of the country, formed the principal food of the Brahmins and indeed of the Hindoo tribes in general. No banquet is esteemed more costly and luxuriant by those priests than a full bowl of fresh cream, whose richness they moderate with the diluting juice of the cooling and high flavoured fruits of that garden of Asia. Hence the veneration of the Indians for the bovine species, which seems to have originated as well from their gratitude to that useful animal for the nutriment it produced them, as from the anxious wish of their great legislator

* Herodotus, lib. ii. p. 82.

to preserve a race so absolutely necessary to the concerns of agriculture, which was to be the constant employ of the fourth part of the nation ; and here we discover at least *one* probable source of the prevailing doctrine of the Metempsychosis. This rooted veneration both of the Indians and Egyptians for the same deified animal was the occasion of the former giving to the rock, through which the Ganges rushes into Hindostan, the imagined form of a cow, whence its geographical name of GAN-GOTRI, *the Cow's Mouth* ; and caused the spot where the Nile separates, at the point of the Delta, to be denominated BATN-LL-BAKARI, *the Cow's Belly* ; a very remarkable fact, and scarcely possible to be accounted for on the score of mere accident.

With all this studious care of the legislator to prevent diseases, since they are the lot of suffering humanity, diseases would at times afflict the Hindoos with as much inevitable certainty, though, probably, from their temperate habits, with far less violence, than their Asiatic neighbours.

It cannot be supposed, indeed, that, in a climate where rice and vegetables compose the uniform diet of the people, many acute diseases could have occurred in the practice of the physician ; and those that did occur were pro-

bably cured by dietetic medicine, beyond which the knowledge of mankind, in the very early ages to which I allude, cannot be presumed to have greatly advanced. The whole extent of the science, at that time known, seems to have been confined to the use of medicines that were either of an emetic, purgative or diuretic, nature. Thus among those of a purgative sort, are reckoned the *Mirabolans*, which are prescribed very generally and abundantly in cases that require it. As a sovereign stomachic they give the infusion of a reed, on the Malabar coast, called *Cræatt*, a plant resembling the *Centaurus Major*: it has an extremely bitter taste, and is considered as a great promoter of digestion. In this light they also esteem the nut of the *Areca*, mixed with *chunam*, a kind of lime burnt and made of the finest shells, of which they universally take very large quantities. But what shall we think of a race who insist on the cooling virtues of pepper, and give large doses of it in a burning fever? Among provocatives, they have always set a very high value on the invigorating root of ginseng, and others of similar quality, and have been but too happy in finding out a great variety which need not be here enumerated. For fluxes of blood, which are not uncommon in this climate, especially in the autumnal season, the Brahmins have

discovered a very simple, but, as they affirm, a very efficacious, remedy; it consists in a regimen limited to rice alone, stewed dry, to which they ascribe a quality highly absorbent of the acrimony which occasions the disorder: by way of drink, they allow only water, corrected by a very moderate quantity of cinnamon or cassia lignum.

If we may judge from certain customs now prevalent in India, and recorded by modern travellers, *fire* was also not unfrequently applied in cases where the aid of the physician was necessary; for, at this day, in violent sickness, purging, and contortion of the intestines, they apply to the feet plates of burning iron, which are said rarely to fail of the intended effect.

The expressed juice of particular roots and vegetables, known by experience to possess either of the qualities above-mentioned, emetic, purgative, or diuretic, was freely administered to the patient who required it. With respect to *acute* internal diseases, when they did happen, their slender experience in the deeper branches of the healing art, added to their general, I do not say *total*, ignorance of anatomy, rendering them utterly inadequate to the management of them, they resigned the patients afflicted with them to the care of the

gods, by whose immediate resentment against their crimes, it was firmly believed, they were incurred. In diseases of this desperate class recourse was had to earnest supplication and oblations, often of the most costly kind, in hopes, by them, to appease the wrath of the offended deity. The Brahmins, who, on these occasions, found it necessary to substitute juggling for science, resorted to the most powerful charms to evoke the evil dæmon, and incantations the most awful were the immediate prelude either to a speedy recovery or a rapid exit. In considering this early stage of the science, it should not be forgotten that odours, strongly aromatic or offensively fetid, had their share in the practice of the Hindoo physician; and certain precious stones, of the more costly kind, worn as amulets, were not supposed to be without a sovereign virtue in the cure of diseases.

WAR, to which the Rajah or military tribe had a natural and authorised propensity, and regulations for the conduct of which, in all the numerous branches of that science, which consequently prove their early acquaintance with it, engage a large part of the Hindoo code, could not have been carried on, especially with such instruments as the battle-axe, and others then made use of, without dreadful laceration of the human frame; and it would be too cruel

a reflection on any race of men, however abhorrent at the sight of blood, to suppose the unhappy victims would be left to perish without an effort to staunch the streaming wound whence life was issuing. In these cases the application of bandages, with the addition of certain leaves or roots bruised or steeped in balsamic oils, or unguents formed of the vulnerary herbs, were all that could be employed by a race of men, who, from superstitious principles, are said in general to have avoided, as much as possible, the use of the lancet, and even to this day to continue entirely ignorant of *anatomical dissections*.

However inferior the knowledge of the Hindoos in the practice of the more intricate branches of medicine, their early respect for the profession is evident, by their making a physician, by name Danwantara, one of the fourteen *retnas*, or precious things recovered from the ocean after the deluge; and from their most ancient medical book, entitled Chereca, being believed by them to be the work of SEEVA. That deficiency of knowledge, however, is by no means an ascertained fact, but rather the contrary; for Sir William Jones declares that he had himself seen Indian prescriptions taken from their ancient medical treatises, one consisting of *fifty-four*, and another of *sixty-six*,

ingredients; but such compositions, he adds, are always to be suspected, since the effect of one ingredient may destroy that of another; and it were better to find a certain account of a single leaf or berry, than to be acquainted with the most elaborate compounds, unless they too have been proved by a multitude of successful experiments. “ The noble deobstruent oil extracted from the Eranda-nut, the whole family of balsams, the incomparable stomachic root from Columbo, the fine astringent ridiculously called Japan earth, but in truth produced by the decoction of an Indian plant, have long been used in Asia; and who can foretel what glorious discoveries of other oils, roots, and salutary juices, may yet be made?”*

In another place he acquaints us that infinite advantage may be derived by Europeans from the various medical books in Sanscreeet, which contain the names and descriptions of Indian plants and minerals, with their uses, discovered by experience, in curing disorders; and there is a vast collection of them from the Cheraca, above-mentioned as the work of SEEVA, down to the Roganirupana and the Nidana, which are comparatively modern. Of medicine, however, systematically formed into a science, he forbids us, after all, to expect

* Asiatic Researches, vol. i. p. 409, London, quarto edit.

finding any ancient treatise whatever, perhaps, in all the Oriental world; what in time may be discovered will be a mere empirical history of diseases and remedies as now practised in India and the greatest part of Asia, by Brahmins and Mahomedans.*

In many of the medical pursuits of the Indians, a certain degree of chemical knowledge was essentially necessary; and the same scientific skill by which they were enabled to extract the colour from indigo, sandal, and other vegetable productions, to give the vivid dyes to their manufactured cottons, would doubtless direct their efforts in extracting the virtues of those rich botanical and mineral treasures which their country in such abundance produced for the more important purposes of health. Their chemistry, however, opens an immense field for discussion; and, on that account, I forbear going at any length into the subject, till it comes regularly before us in this review of Indian literature. What I shall have to observe upon it will merely concern the science under consideration, and as it is connected with a subject extremely interesting, but very much misconceived; I mean, whether in reality *anatomical dissections* have always been looked upon with

* Asiatic Researches, vol. iv. p. 350:

that horror with which they are now regarded in India.

I shall commence the concise strictures, which I have at present to offer on the subject, with observing, that, though from the general slow advance of mankind in intellectual improvement, we ought to be extremely cautious of conceding too much even to Indian ingenuity ; yet it cannot be denied, that the mine of knowledge once sprung, that curious and docile race ardently and vigorously pursued their investigations, and penetrated that mine to the profoundest depth their limited means of research would allow of. Hence, probably, a very few ages elapsed before the combination of a thousand incidental circumstances led them to become gradually acquainted with the two grand pillars of all genuine medicine,—anatomy and chemistry. The offering up of human victims to Cali, the sable goddess of India, and their blood in consequence profusely shed by the ancient Indians in the Naramedha sacrifice, a practice forbidden the modern Brahmins, though sometimes practised, even at the present day, by the military tribes, more familiar to sanguinary institutions ; that dreadful rite, I say, could not fail of making them speedily acquainted with the anatomy of the human body. Their having been anciently accustomed to

these oblations, from their present horror of human and bestial slaughter, which commenced with the avatar of Buddha, who forbade them under the severest penalties, was once strenuously denied; but more familiar acquaintance with the Sanscreeet language, and their original institutions, obtained at Benares itself by learned Orientalists of our own nation, have placed the matter beyond all doubt; and the subject has been already amply canvassed in preceding volumes. It was on this account that I hesitated in speaking decisively when discoursing concerning their advance in anatomical science. But, if doubt should still remain, let him that hesitates attend to the *RUDHIRADHYAYA*, or *sanguinary chapter*, in the fifth volume of *Asiatic Researches*, translated *verbatim* by Mr. Blaquiere from the *Calica Purana*, and he will not fail of being convinced of the addiction to this nefarious crime of the ancient, whatever may be the placid character of the modern, Indian. No precepts can be conceived more express, nor indeed more horrible, than those which the text of this tremendous chapter enjoins.

“ By a human sacrifice, attended with the forms here laid down, *DEVI*, the goddess *Cali*, is pleased one thousand years, and, by a sacrifice of three men, one hundred thousand years.

By human flesh, Camachya, Chandica, and Bhairava, who assume my shape, are pleased one thousand years. An oblation of blood, which has been rendered pure by holy texts, is equal to ambrosia; the head and flesh also afford much delight to the goddess Chandica. Let therefore, the learned, when paying adoration to the goddess, offer blood and the head; and, when performing the sacrifice to fire, make oblations of flesh.

“ Let the performer of the sacrifice be cautious never to offer bad flesh, as the head and blood are looked upon by themselves equal to ambrosia.

“ The performance of the sacrifice with a Chandrahasa, or Catri, (two weapons of the axe-kind,) is reckoned the best mode; and with a hatchet, or knife, or saw, or a sangcul, the second best; and the beheading with a hoe, or Bhallac, (an instrument of the spade-kind,) the inferior mode.

“ Let not the learned use the axe before they have invoked it by holy texts, which have been mentioned heretofore, and framed by the learned.

“ Let the sacrificer say, Hrang Hring. Cali, Cali, O horrid-toothed goddess! eat, cut, destroy all the malignant, cut with this axe;

bind, bind; seize, seize; drink blood; spheng, spheng; secure, secure. Salutations to Cali

“ Let the face of the victim be turned towards the north, or else let the sacrificer turn his own face to the north, and the victim's to the east. Having immolated the victim, let him without fail mix salt, &c. as beforementioned, with the blood.

“ The vessel in which the blood is to be presented is to be, according to the circumstances of the offerer, of gold, silver, copper, brass, or leaves sewed together, or of earth, or of *tutenague*, or of any of the species of wood used in sacrifices. Human blood must always be presented in a metallic or earthen vessel; and never, on any account, in a vessel made of leaves or similar substance.”

Again, it is said, “ Let a human victim be sacrificed at a place of holy worship, or at a cemetery where dead bodies are buried. Let the oblation be performed in the part of the cemetery called Heruca, which has been already described, or at a temple of Camachya, or on a mountain. Now attend to the mode.

“ The cemetery represents me, and is called Bhairava; it has also a part called Tantranga: the cemetery must be divided into these two divisions, and a third called Heruca.

“ The human victim is to be immolated in the east division, which is sacred to Bhairava; the head is to be presented in the south division, which is looked upon as the place of skulls sacred to Bhairavi; and the blood is to be presented in the west division, which is denominated Heruca.

“ Having immolated a human victim, with all the requisite ceremonies at a cemetery or holy place, let the sacrificer be cautious not to cast eyes upon the victim.

“ On other occasions, also, let not the sacrificer cast eyes upon the victim immolated, but present the head with eyes averted.

“ The victim must be a person of good appearance, and be prepared by ablutions and requisite ceremonies, such as eating consecrated food the day before, and by abstinence from flesh and venery, and must be adorned with chaplets of flowers, and besmeared with sandal-wood.”*

The early addiction of the Indians to these sanguinary rites, these minute injunctions as to the mode of sacrificing the human victims, and the auguries deduced from them, being thus fully demonstrated to have taken place from the Puranas, the books holden most sacred among them next to the Vedas,—to say no-

* Asiatic Researches, vol. v. p. 378.

thing of what they must infallibly have learned from the same conduct in regard to bestial sacrifices; for the regulation of which, very minute and circumstantial precepts are given in the same chapter;—after these authentic statements, I say, it is impossible to give credit to those who affirm that their ancestors were totally ignorant of the internal structure of the human body, and that a race, so curious in their researches into natural history, were unacquainted with those anatomical dissections which are so indispensably necessary in the judicious administration of internal medicine. The flint-stones, before-mentioned, with their extremely keen edges, might, in the infancy of anatomical science, be sufficient for every purpose of this kind; but under the next head it will be shewn that metallurgic operations, also, were in such early periods practised among them, that there was no necessity for their continuing to make use of those rude instruments in surgery beyond the first or second century after the deluge. In the preceding quotation, sacrificing-instruments of the *axe-kind*, the *hatchet*, the *saw*, and the *spade*, are repeatedly mentioned. These could not have been fabricated without the exertion of chemical science by the process of fire, and hence it is at least demonstrated that they must have

been accustomed, at the early period when the Puranas were composed, to the method of fluxing *metallic*, as well as of compounding *herbaceous*, substances.

To place the subject in debate beyond the possibility of future dispute, I shall select a passage from the Essay on the Philosophy of the Indians, the last publicly delivered by the only person who has ever read, in the original, the sublime Vedas of India, the distant date of whose promulgation has already been ascertained. "In the Veda itself," says Sir William Jones, "I found, *with astonishment*, an entire *Upanishad* on the internal parts of the human body ; with an enumeration of nerves, veins, and arteries ; a description of the heart, spleen, and liver ; and various disquisitions on the formation and growth of the fœtus.* This must be considered as absolutely decisive of the question ; and all that is left us is extreme astonishment, with the President, at the great and total change that has taken place in the manners and sentiments of a race, which, in all other respects, are as immutable as the laws of the Persians, their ancestors.

But though from the early use, among the Indians, of weapons fabricated of *brass* and *iron*, as recorded both by sacred and profane writers

* Asiatic Researches, vol. iv. p. 167.

and from the equally undoubted use of metallic instruments in surgery, it is indubitable, that, in the most ancient periods, that branch of chemical science was known to them which has relation to the fusion and compounding of metals I think it scarcely credible that, in the early times to which I allude, they had advanced so far in that science, as to apply preparations of the various metals to medicinal purposes. No proofs, at least, of any such fact, have as yet been exhibited, and the question, therefore, with respect to India at least, must remain undecided till the Brahmin books on the subject have been more deeply investigated. On the other hand, we are unable to reconcile to reason or tradition the judgment pronounced by Le Clerc, and the authorities cited by that learned historian of this science, that nothing of this kind was known till so late a period as the age of Paracelsus. The contrary is evident from an infinite variety of passages scattered up and down in the medical works of the ancient Greek writers, which the learned Mr. Dutens has collected together under the head of Medical Chemistry, and to which I beg to refer the inquisitive reader.*

There remained enough, otherwise, to be done by the Oriental student; for nature, as before

* Inquiry into the Learning of the Ancients, p. 243.

observed, has stored India and its neighbouring territory with an infinite variety of the noblest natural productions that enrich the *Materia Medica*; and for the discovery and trial of their virtues, as well as the extraction of their balsamic oils and essences, we are primarily indebted to the laborious investigation and patient toil of the ancient Brahmins. A summary view of a *portion* only of her treasures of this kind will convince the reader of the truth of this remark. Her forests and gardens produce us, in high perfection, cassia, aloes, opium, rhubarb, the white and red saunders, saffron, turmeric, anacardium, the amomum, sesamum, assafætida, benzoin, and camphor. The gums lac, benjamin, gamboge, myrrh, olibanum, sanguis draconis, bdellium, storax, and innumerable other resins, are also her tribute to the western world. Her mineral beds are fraught with the most precious ores and gems; her extensive shores abound with the richest pearls, and are covered with the finest ambergris; her very animals yield us musk, civet, and the bezoars; her aromas and spices of every kind surpass enumeration; the pepper, the ginger, the nutmegs, the cloves, the cardamoms, the cinnamon, the nardus Indicus, and other fragrant nards, which she matures in her bosom, and sends annually to Europe, to conquer, by effeminacy and luxury,

the nations who have subdued her ingenious progeny by ruder weapons.

In what manner and to what particular cases the old Indian physicians applied all this immense treasure of medicinal roots and drugs we shall never fully know, till their ancient treatises on the subject shall have been effectually explored. But, as it is necessary to bring this prolonged discourse on medicine to an end, we shall conclude with taking a summary view from authentic sources of information, of the principal diseases with which the Indians are afflicted, and their usual methods of cure as in practice at the present day, but most probably derived from very ancient sources of instruction.

On this subject it must be confessed, that, however exalted might have been the knowledge of the ancient Indians, they have bequeathed a very slender portion of it to their descendants, who seem to practise physic, as they do astronomy, by a routine of which they do not understand the principles. It is this ignorance as to the theory, and gross absurdity as to the practice, of medicine, in the present race of Brahmins, indeed of all the Oriental nations, that has rendered European physicians so much in request at the court of the Indian and Mahomedan princes ; that detained Gemelli so

long at the court of Jehan Ghir; and gave an opportunity to Bernier to write his interesting account of the life and actions of Aurungzeb, and the voluptuous retreat of the Indian emperors at Cashmere. This latter traveller, with Thevenot, Fryer, and Sonnerat, two of them physicians, and consequently able judges of the subject, will be my faithful guides in the course of that survey.

The account of Bernier, however, though a physician, is, I am sorry to add, very superficial and unsatisfactory; it consists in the enumeration of a few short aphorisms, simple indeed, and rational enough, but certainly, not very profound or scientific. Thus, in a general way, he acquaints us, their books inculcate, “that one who is sick of a fever stands in no great need of nourishment; and that the main remedy of all sickness is abstinence; that nothing is worse for a diseased person than flesh broths, nor does any thing corrupt sooner in the stomach of a feverish patient; and that no blood is to be taken away” (which flatly contradicts the assertion of their *never* using phlebotomy) “but in cases of great and urgent necessity, as in phrenitis, or inflammation of the chest, liver, and kidney.”*

* Bernier's *Voyages to India*, vol. iii. p. 165, London edition, 1672.

Thevenot mentions two methods in general use among the Indians of curing the bite of venomous reptiles, of a very extraordinary nature; the first is, holding a burning coal, as long and as close as possible, to the wound, which draws out the venom by degrees, and, what is very singular, the patient does not feel any great inconvenience from the heat during the time of the operation. The other remedy consists in the application of the *Cobra*, or snake, stone. Of this celebrated specific, the best are made in the city of Diu, and are composed of the roots of certain plants burnt to ashes, which ashes are mixed with a particular kind of earth, and then burnt a second time. Of this composition, reduced into a paste, they form the *Cobra-stone* of the size of a pigeon's egg. It is applied, in case a person be bit by any kind of serpent or viper, or wounded by a poisoned arrow, in the following manner:—they first prick the wound with a needle till the blood flows, and then fix the stone to it, which sticks fast, and remains there till it falls off of itself. It is afterwards put into woman's, or if that cannot be had, into cow's, milk, where it purges itself of the poison; and if this be not done immediately, the stone bursts.*

* Voyage aux Indes Orient, vol. v. p. 318.

Dr. Fryer, who was ten years in India, and who, as a physician, was certainly a proper judge of such matters, speaks also of these snake-stones. He says, they are made by the Brahmins, and that they are a sure counter-poison to all deadly bites. If the stone adheres, it attracts the poison, and, put into milk, it recovers itself, leaving its virulency therein, which is discovered by its greenness.*

This author imputes to the vicissitudes of the climate all the variety of diseases suffered by the Indians. During the steady northern monsoon, their fibres are hardened against the usual diseases of the country. In the variable months, catarrh, glandular swellings of the throat, rheumatisms, and intermitting fevers, are common among them. In the extreme heats they are afflicted with cholera morbus and violent inflammations of the eyes. In the rains, with dreadful fluxes, and disorders of the brain and the stomach: for the latter they eat HING, a sort of liquid assafætida, which occasions them to emit a disgusting odour,

In agues, he says, they use a powder composed of a preparation of native cinnabar, which is reckoned as infallible as the Peruvian bark among us.†

In lethargies they administer garlic and

* Fryer's Travels, p. 33. † Ibid. p. 115.

ginger in a menstruum of oil or butter. At present they use not the knife in scarification, but the rind of a certain caustic nut that burns the skin. The actual cautery is applied in vomiting, with looseness, and also in calen- tures. They abhor phlebotomy; but, when absolutely necessary, they make use of leeches, using them immoderately, and often putting on a hundred at once, which they have not skill to remove, and they adhere therefore till they are satiated, and then fall off of themselves, by which means the life of the exhausted patient is often exposed to the most imminent danger.* Their practice in fevers is not less pernicious; for, according to Dr. Fryer, they administer coolers till, with the flame of the disease, the vital heat is also nearly extinguished; obstinate chronical diseases are the fatal consequence. Dropsy, jaundice, and cachexies of every description, attack the patient and make the remainder of his life miserable. In fevers less violent they content themselves with administering, in abundance, the cooling fruits of the country. Thus the fruit of the Anana, or Indian pine-apple, on account of its peculiar yet pleasing acidity, mingled with a delicious flavour, is valued as a noble febrifuge. The refrigerating juice of the water-melon, the

* Fryer's Travels, p. 115.

delicious mango, and the fruit of the stately tamarind-tree, are all highly esteemed for the same excellent quality.*

For that most dreadful of diseases, but so common in Eastern countries, the elephantiasis, the ancient Indians found out a sovereign cure in administering arsenic in considerable quantities. The genuine prescription is, happily for the curiosity of posterity, preserved in the Asiatic Researches, and is said to have been an old secret of the Hindoo physicians, who applied it also to the cure of cold and moist distempers, as the palsy, distortions of the face, relaxation of the nerves, and similar diseases : its efficacy too has been proved by long experience ; and this is the method of preparing it :

“ Take of white arsenic, fine and fresh, one tola ; of picked black pepper six times as much ; let both be well beaten at intervals, for four days successively, in an iron mortar, and then reduced to an impalpable powder in one of stone, with a stone pestle, and, thus completely levigated, a little water being mixed with them, make pills of them as large as tares or small pulse, and keep them dry in a shady place.

“ One of those pills must be swallowed morning and evening with some betel-leaf, or, in countries where betel is not at hand, with

* Fryer's Travels, p. 118.

cold water. If the body be cleansed from foulness and obstructions by gentle cathartics and *bleeding* before the medicine is administered, the remedy will be the speedier.”*

The next article in the same volume ought not to be omitted in this account of Indian medicine; it has relation to the bite of serpents, particularly that most fatal one of the *Cobra de Capello*, and the cure is effected by from forty to sixty drops of *volatile caustic alkali spirit* diluted with water, or, if that be not at hand, a rather larger portion of eau de luce, which is to be had every where. The inventor of this valuable medicine is Mr. Williams, a Bengal practitioner. The cases fell under his personal observation; and, for his public communication of it, that gentleman deserves the thanks of every person, native and foreign, in the whole extent of India.

The arsenic pills above-mentioned are also said, I presume from the proximity of that mineral to mercury, to be a sovereign cure for the *Persian fire*, as they there call the *lues venerea*: and here I find it necessary to remark, that, upon whatever treatise, concerning the diseases of India, we cast our eyes, we are certain to read of the ravages of this fatal disorder.

der, which seems to have reigned for *immemorial* ages in that country; and, owing to the unhappy rejection of European aid by the inhabitants, from superstitious motives, and a rooted prejudice in favour of their own absurd method of treatment, to have taken wide and deep root in it, and to have cut them off annually by thousands.

In proof of these rooted superstitions and obstinate prejudices of the Hindoos, just mentioned as the indubitable cause of such dreadful calamities to them, may be adduced the following instance inserted in the Sketches of Mr. Crauford, who writes from personal knowledge.

“ One of the natives, who was employed in an eminent post at an English settlement, being prevailed on in a dangerous illness to receive a visit from an European doctor, it was found that, by long abstinence, which in sickness the Hindoos often carry to excess, the stomach would no longer retain any thing. The disorder being of a putrid kind, the doctor wished to give the bark in strong wine; but the Hindoo positively refused to take it, notwithstanding many arguments that were used both by the doctor and the governor who accompanied him; and who had a considerable degree of influence over the Hindoo. They promised that it should remain an inviolable secret; but he replied with

great calmness, that he could not conceal it from himself; and a few days afterwards fell a victim to his perseverance.”*

Most of the children of the inferior casts are said to come into the world with the virus of this dreadful malady latent in their blood, and the most terrible evils result from it in future life. Medicines that can only palliate the symptoms, but have not efficacy to exterminate the seeds of it, are made use of, and the tortured patient lingers through a miserable life, and dies at last of the elephantiasis.† The public institution of Dancing Girls, an authorized system of prostitution that reflects eternal dishonour on the policy of the country, has probably been the baneful source of this national calamity.

From the same fatal causes, ignorance and superstition, added to a burning climate, the small-pox, when it appears, is said to spread terrible devastation through their great towns and villages. The principles of their religion forbid the use of inoculation; they make no distinction in their treatment between the confluent and the reflux kind. Every thing is left to diet-drinks and superstitious antidotes; the patient is sprinkled with the ashes of cow-

* Sketches of the Hindoos, p. 306.

† Sonnerat, vol. ii p. 146.

ding; anointed with cocoa-nut oil; and finally bathed in cold water, which generally terminates his existence.*

Sonnerat records a singular cure among them for the epilepsy, which is eating of rooks. In cutaneous disorders, which are supposed to proceed from worms, unguents and cataplasms are seldom applied, the omnipotent caustic removes at once the skin and the worm that corrodes it. For disorders produced by cold, the hottest internal medicines are used; inflammation, convulsions, and death, ensue; and the evil dæmon is execrated for the sins of the unskilful physician. The poverty of their diet, especially of the inferior classes, while it preserves them from inflammatory diseases, induces those of a very different kind. The violent purgatives to which they constantly resort in all illness, from supposed obstructions, increase the malady, and the carcase of the putrid patient ejects worms upwards and downwards; his skin burns; his eyes are sparkling and humid; his tongue is torrid, and often split; he grows delirious, and dies.

All the species of fluxes before described, with their concomitant symptoms, are enumerated by this author, with the addition of one of a sort more than usually fatal, which

* Sonnerat, vol. ii. p. 146.

happened while he was in India, and carried off above sixty thousand people in Pondicherry and its neighbourhood.* He imputes it to perspiration suddenly obstructed by one or other of the thousand causes that so frequently produce it in India, by habits of religion, sleeping in the open air, meagre nutriment, ablution in cold water after eating or exercise, &c. &c.

The quantity of butter eaten with his rice, by the abstemious Brahmin, not unfrequently brings on indigestions which terminate in sudden death; on the other hand, those casts which regale on meat, a nourishment too heavy for so hot a climate, are often the victims of indigestion, called in India *mort de chien*.

Some inflammatory fevers they have which are cured by diet-drinks made of the pounded root of the margosier, something similar to our bark, and preferred by them to that imported by us. The gout cannot be supposed common among them; but, when it attacks them, it is cured by the use of a powder in which brimstone is the principal ingredient. In the part of India, where our author resided, they cure the bite of the Cobra by an application known to Europeans by the name of Ointment of Madura, and likely enough to have been one of their oldest specifics against its poison. It is a mix-

* Sonnerat, vol. ii. p. 142.

ture of different herbs and roots containing a great quantity of volatile alkali ; and the principal ingredient in it is the kernel of the pineapple tree. It is a violent purgative, and emits a fætid odour like human excrement. They rub a portion into the wound, and make the patient swallow another portion. If early applied, it generally proves efficacious.*

Such is the extraordinary, but authentic, portrait of the medical practice of the Brahmins. I have entered as extensively into the subject as possible, because it is a very interesting one to European practitioners. We shall now attend to their CHEMISTRY, which will lead us a few steps farther in the inquiry ; though to what extent they applied the preparations of the several metals to medicinal purposes can never be known, till their oldest Sanscreeet treatises shall have been translated.

CHEMISTRY.

Those who, from the earliest periods, have been devoted to a superstitious veneration of the element of FIRE, those who gave to their pagodas the form of pyramids and cones, to imitate the solar beam, and on whose altars a sacred flame for ever blazed, could scarcely fail of being

* Sonnerat, vol. ii. p. 153.

intimately acquainted with its wonderful properties, which in fact were the source of that admiration and reverence. It was their acquaintance with its active pervading principle and energy which induced them to idolize FIRE as the soul of the material world; its hallowed beam, their physical theology taught them, emanating from the solar orb, first gave animation and motion to universal nature; and, from some mutilated tradition of a better theology, they regarded fire as the great CHEMIST that was finally to dissolve the universe and reduce it to ashes. In fact, they conceived the orbs of heaven to be formed of a kind of ætherial fire, and that they floated in a circumambient luminous fluid, which they considered as a fifth element, and denominated the AKASS. I have had frequent occasion to observe that their superstitious veneration for this element probably commenced, during their residence in Chaldæa, with the first corruption of the pure patriarchal theology; and, according to the Indian history,* devout pilgrims, as well as in memorial of their origin as of this their primæval devotion, still resort to Hierapolis in Syria, and pay their devotions at the two JWALA-MUCHIS, or *springs of Naptha*, the one not far from the banks of

* Mr. Wilford on Egypt and the Nile, in Asiatic Researches, vol. iii. p. 297.

the Tigris, the other on the flaming plain of Baku, on the borders of the distant Caspian Sea, where the priests of the sun watched night and day the never-dying flame, supposed to have been kindled by his own ray.

Of the powerful agency of FIRE, the Asiatics could scarcely avoid entertaining the most awful conceptions, since its tremendous effects were often too distinctly visible in that torrid climate, where the broad flashes of the tropical lightning fired their loftiest forests, and the globe of electric flame levelled their proudest temples with the dust. They also saw it in the bursting volcano that shook to the centre their mountains of broadest base, and filled whole provinces with desolation and dismay.

Observing with anxious and fearful attention the wonderful operations of nature by the process of fire, in the melted minerals that rolled in torrents down the sides of the flaming mountain, in their resistless course sweeping away every intervening object, or assimilating it with its own substance, the ancient inhabitants of Asia endeavoured to imitate her supreme analyzing power, and very early commenced the practice of chemistry. To what extent, indeed, that primitive race knew the art of decomposing and combining bodies by means of fire, it is impossible to ascertain; but, without

being considerable adepts in this science, neither could Tubal Cain, — that Tubal Cain, whose high antiquity and whose resembling name plainly mark him for the Vulcan of Pagan mythology ; for, they thought, and one might almost think with them, that the inventor of the science of chemistry could scarcely be less than a god, — have been the instructor of every artificer in brass or iron ; nor the Indian Visvacarma, the active substitute of Agni, the Hindoo god of fire, have forged the arms of the Devatas, those missile weapons of fire in the Puranas denominated AGNEE-ASTRA, and made use of in the Satya, or first age of the world. The use of fire-arms, in the earliest periods, opens a wide field for reflection, in many respects, since it proves that the Indians knew how to apply the salt-petre and sulphur vivum, with which their plains abound, to the purposes of war, and formed out of them a composition which if not actual gunpowder, was of such a nature as gave to bodies a projectile motion. Mr. Halhed expressly denominates it *gunpowder*, and gives the following account of the invention in his preface to the Gentoo Code.

“ It will, no doubt, strike the reader with wonder, to find a prohibition of fire-arms in records of such unfathomable antiquity ; and he will probably hence renew the suspicion which

has long been deemed absurd, that Alexander the Great did absolutely meet with some weapons of that kind in India, as a passage in Quintus Curtius seems to ascertain. Gunpowder has been known in China, as well as in Hindostan, far beyond all periods of investigation. The word fire-arms is literally, in Sanscreet, Agnee-aster, *a weapon of fire*. They describe the first species of it to have been a kind of dart or arrow tipped with fire, and discharged upon the enemy from a bamboo. Among several extraordinary properties of this weapon, one was, that, after it had taken its flight, it divided into several separate darts or streams of flame, each of which took effect, and which, when once kindled could not be extinguished; but this kind of Agnee-aster is now lost. Cannon, in the Sanscreet idiom, is called Shet-Agnee, or *the weapon that kills a hundred men at once*; and the Puranas or histories ascribe the invention of these destructive engines to Visvacarma, their Vulcan, who is related to have forged all the weapons for the war which was maintained in the Satya Yug, between the Devatas and Assoors, (or the good and bad spirits,) for the space of one hundred years.”*

This quotation seems to prove that the natives of this country had both actually and immemorially the use of gunpowder, and the metallic

* Halhed's Gentoo Code, preface, p. 52.

instruments of death, brass, perhaps, or copper employed in the offensive use of that destructive article : but, if the Agnee-aster of ancient times bear any resemblance to the *fire-rocket* used in the modern wars of India, it proves that the Indians had, in those early periods, the use of iron also, the extraction and fusion of which ore, and the preparation of it for use, are among the most complex and elaborate operations of chemistry. The *fire-rocket* is described, by a gentleman who personally examined them in India, “ to consist of a tube of iron about eight inches long, and an inch and a half in diameter, closed at one end. It is filled in the same manner as an ordinary sky-rocket, and fastened towards the end of a piece of bamboo, scarcely as thick as a walking-cane, and about four feet long, which is pointed with iron : at the opposite end of the tube from the iron point, or that toward the head of the shaft, is the match. The man who uses it points the head of the shaft, that is shod with iron, at the object to which he means to direct it, and, setting fire to the match, it goes off with great velocity. By the irregularity of its motion, it is difficult to be avoided ; and sometimes acts with considerable effect, especially among cavalry.”*

A modern author of much celebrity has very ingeniously attempted to prove that the

* Sketches of the Hindoos, p. 295.

ancients were actually acquainted, in very early periods, with the chemical process of making *gunpowder*, and instances the invention of Salmoneus, with which he is said to have imitated the thunder and lightning of Jupiter, in proof of his assertion. What is, however, much more to our present purpose, he cites Themistius to prove that the Indian Brahmins encountered one another *with thunder and lightning* launched from an eminence;* and Philostratus in evidence, that, when attacked by their enemies, they did not leave their walls to fight them, but darted upon them missile weapons, in noise and effect resembling *πρηστηρας και βροντας*,† *lightning and thunder*. By these weapons were evidently meant the fire-shaft, or rocket, described above; and to these we may add the artificial thunder and lightning used in their cavern initiations.

No higher proof in time need, indeed, be adduced of the intimate acquaintance of the Indians with the penetrating and destructive nature of fire than that exhibited in the *chakra*, with which they have armed their god Veeshnu, and with which he destroys the malignant Assoors. It is a circular mass of fire, which, instinct with life, like the thunder-bolt of the

* Themistius, Oratio 27, p. 337.

† Philostrat. Vita Apollonii, lib. ii. cap. 33.

Grecian Jove, when hurled from the hand of that deity, traverses the illimitable void, and exterminates his enemies wheresoever concealed.*

The ancient mysteries generally abounded with allusions to subjects of a physical kind. The operations of nature in her most hidden recesses, particularly in forming ores, and the precious gems that lie hidden in the bosom of the earth, and in the maturing of which they thought the sun had a considerable influence, were among the favourite subjects of their philosophical investigations. The Persians, in particular, who were THE ANCESTORS of the Indians, must have been well acquainted with metals; for, it is a circumstance not a little curious, and very much in favour of the hypothesis that assigns to Oriental chemistry a very high antiquity, that those learned Asiatics, in their mysterious rites, allotted to the *seven terrestrial metals* the very same names by which they denominated the *seven planets*, and the same hieroglyphic characters at this day equally distinguish both.

It has been observed in a former volume of this work, that, by the subterraneous *cave of Mithra*, they meant to represent the mundane system; and that, in pursuance of this idea,

* Geeta, p. 150.

they erected in that cave a high ladder, on the ascent of which were seven different gates, according with the number of the planets. The first gate was of *lead*, which was intended to mark the slow motion of the planet SATURN; the second gate was composed of *tin*, by which they shadowed out the brilliancy and softness of VENUS; the third gate was of *brass*, which they imagined a just emblem of the solidity and durability of JUPITER; the fourth gate was of *iron*, by which MERCURY was typified, because he is suited, like iron, to all sorts of labours; the fifth gate consisted of a *mixed mass*, of which the heterogeneous composition, variableness, and irregularity, rendered it the fit emblem of MARS; the sixth gate was of *silver*, exhibiting an apt similitude of the mild radiance of the SILVER EMPRESS OF THE NIGHT; and the seventh was of *gold*, a proper emblem of the SUN, the one being the king of metals, and the other being the sovereign of the sky.* We have also observed, that, on the lofty concave dome of this splendid cave, the zodiacal asterisms were designated; and round their walls many astronomical and geometrical symbols were arranged in the most perfect symmetry, and placed at certain distances, which

* Celsus apud Origen contra Celsum, lib. iv.

shadowed out the *elements* and *climates* of the world.†

The progressive advances of the candidate for initiation through the dreary and winding recesses of this subterraneous temple, *immani magnitudine*, had all a physical reference blended with mystic allusions to that theology, which was almost entirely founded on physics. The whole was a sublime allegory; a spiritual sort of *chemistry*. The passage of the body through the respective mundane elements was only typical of the soul's progress through various stages of purification, as gold is tried in the *furnace* of the *refiner*. The utmost exertion of chemical science, known to them, must have been employed alternately to terrify and transport the bewildered aspirant. For want of better, I adopt the same words which I used before, when describing these mysteries.

After having proceeded for some time through these gloomy adyta, the ground suddenly began to rock beneath his feet; the whole temple trembled; and strange and dreadful voices were heard through the midnight silence. To these succeeded other louder and more terrific noises resembling *thunder*; while quick and vivid flashes of *lighting* darted through the cavern, displaying to his view many ghastly sights and

* Porphyry de Antro Nympharum, p. 256. edit. 1655.

hideous spectres.* At length, the profounder mysteries commenced; and now, arrived on the verge of *death* and *initiation*, every thing wears a dreadful aspect; it is all horror, trembling, and astonishment. An icy chilliness seizes his limbs; a copious dew, like the damp of real death, bathes his temples; he staggers, and his faculties begin to fail; when the scene is of a sudden changed, and the doors of the interior and splendidly illumined temple are thrown wide open. A miraculous and divine light discloses itself; and shining plains and flowery meadows open on all hands before him. *Accessi confinium mortis*, says Apuleius, *et calcato Proserpinæ limine, per omnia vectus ELEMENTA remeavi; nocte medio vidi SOLEM candido CORUSCANTEM lumine*: — Arrived at the bourn of mortality, after having trod the gloomy threshold of Proserpine, I passed rapidly through all the surrounding elements; and saw the SUN at midnight shining with MERIDIAN SPLENDOR.* These successive thunders and coruscations; this blaze of glory, scarcely tolerable by the

* Hence it would appear, they well knew the doctrine of Newton, that “*sulphureous steams*, abounding in the bowels of the earth, ferment with *minerals*, and sometimes take fire with sudden *coruscation* and dreadful *explosion*.”—Newton’s Optics.

† Apuleii Metamorphosis, lib. ii. v. 1. p. 273; and Indian Antiquities, vol. ii. p. 326.

visual organ ; gay smiling plains, and flowery meadows, arrayed in all the vivid colouring of nature ; were the effect of the operations of chemistry in the most refined branches of the science, labouring to impress, with alternate effect, on the mind of the enthusiastic devotee, the gloomy superstitious horrors, and splendid celestial visions, so well calculated to keep alive the ardour of the Sabian devotion.

The reader may possibly object to this statement, that it rather concerns the Persian and Chaldæan system of superstition than the Indian ; but, as I have throughout these volumes contended for the identity of the theological and philosophical doctrines of those three ancient nations, and particularly as the recorded descent of the Indians from the old Persians is so well authenticated in the Asiatic Researches, I might on that ground suffer the argument for that identity to rest ; but there is a most curious, and, to my purpose, most important, passage in the Life of Apollonius by Philostratus, which will decidedly prove the congenial nature of their ideas on this subject, and I shall insert it without a comment : “ *Apollonius cum Jarcha Brachmane secreto philosophatus, muneris loco ab eo tulit annulos septem TOTIDEM PLANETARUM DICTOS NOMINIBUS, quos singulos gestaret per subjectos planetis dies ; sc. ut annulum AUREUM*

gestaret die solis, ARGENTEUM die lunæ, FERREUM die Martis, HYDRARGYRINUM die Mercurii, die Jovis STANNEUM, ÆNEUM die Veneris, et PLUMBEUM die Saturni, quod singulis planetis singula respondeant METALLA."

Leaving for the present these more distant speculations, let us attend to the gradual progress in metallurgic science of this fire-adoring nation. Properly to cultivate the earth, and cause it to produce in adequate abundance the various kinds of grain, which formed the temperate banquet of the Indian, more durable and penetrating implements than the first simple ones of wood would soon be found necessary; and, to defend the property which industrious individuals might possess, against the assaults of men less honest and industrious, arms would be wanted. Both agricultural and warlike implements were, probably, during those primitive ages, fabricated of brass or copper. To reap the ripened grain, at least, a sickle of metal was required, and cymbals of *brass* and *brazen* sistra are expressly said, by Lucian, to have been employed in the mysterious rites of the Dea Syria, the prototype of the Ceres of Greece, in allusion to the clashing of the *brazen* implements used in husbandry, before mankind had become acquainted with the more difficult process of forging iron. Indeed brass could

scarcely fail of anciently being in very common use in India, since the *lapis calaminaris*, from the fusion of which with copper that factitious metal is formed, is neither more nor less than the ore of INDIAN ZINC, of which the beautiful composition, called TUTENAGUE, next to silver in strength and beauty, has been immemorially formed into the most elegant vases and other domestic ornaments by the Oriental manufacturer. The heroes of Homer stalk in arms of burnished brass; the shield, the helmet, the cuirass, the greaves, were brass; and Herodotus informs us, that a nation very near to India, if they were not in reality Indians, the Massagetæ, had their axes, hatchets, spears, and even their horse accoutrements, of the same metal.* Brass, too, was principally used in the mechanical operations of the more ancient Indians; and from them, or at least from the East, where mines were first explored and wrought, instruments of this metal were scattered over the western world. They are sometimes, at this day, found amidst the rubbish of old mines; and even those of Cornwall, when first re-opened after a lapse of many ages, exhibited to the astonished explorers the hammers, axes, chisels, and other copper and brass tools of the ancient Phœnician miners. In fact, the superior

* Herodotus, lib. i. p. 215.

ductility and malleability of copper would naturally induce a race, ignorant of the deeper arcana of chemical science, to prefer it, even when iron was at length discovered, to that less yielding metal, the smelting and refining of which was attended with such infinitely greater labour. Modern experiments upon some remnants of antiquity of this kind have demonstrated that they possessed the knowledge of hardening copper, either by mixing alloy with it, or by some other means, so as to give it a firmness and solidity nearly approaching to iron.

In the old Indian sculptures and pictures, the Avatars, Creeshna and Ram, are generally portrayed, in combat with their gigantic enemies armed with the battle-axe, or the bow and arrow; whence it may fairly be concluded that these were the most ancient kinds of armour used in Indian warfare. Carticeya, however, the Indian god of war, and the gigantic Ravan, are in the same pictures represented as bearing in their hundred arms, the expressive emblem of enormous strength, a dreadful display of every species of military weapon of offence, as swords, spears, javelins, &c.* which proves that they also were in very early use among the military tribe, and were probably fabricated of

* See the plate of the sixth Avatar in the Indian History, vol. ii. part i.

iron; which is repeatedly mentioned as an article of great consumption and traffic in the Institutes of Menu. Without this metal, indeed, and that in its most improved state, when refined to STEEL, many of the Indian artists and manufacturers at that early period, and by that code considered as *already arranged in distinct casts*,—I mean in particular the tribes of goldsmiths, jewellers, and engravers,—could not possibly have carried on their respective occupations, nor have cut in gems and metals those Sanscreeet characters, which, engraved on the imperial signets of Asia, we have been informed above, by Mr. Halhed, were so anciently and generally diffused from the Indus to the sea of China. For this, they must have had instruments of the nature of the *drill*, the *graver*, and the *trepan*, which being necessarily formed of the purest and highest tempered steel, implies in the Indians a previous knowledge and practical experience of the most arduous operations of metallurgic science.

In respect to that species of chemistry which has relation to the process of hardening argillaceous and other earths by fire, we cannot doubt but that it was fully known to a race famous in antiquity for the many elegant kinds of pottery and porcelain common among them, both for domestic ornament and use. From

tradition, history, and the commercial annals of mankind, for nearly thirty centuries, we also know that they were able to extract, by infusion and other means, from earths, roots, and minerals, that variety of lovely and brilliant dyes, for which they have been immemorially celebrated; and, by distillation and fermentation, all those rich oils and fragrant balsams which the vegetable kingdom so abundantly produces in that luxurious garden of the greater Asia.

“ From the insatiable desire of riches,” says an old Sanscreet author, cited in Mr. Halhed’s Preface, “ I have digged beneath the earth; I have sought *by fire to transmute the metals of the mountains.*”*

These are essential branches of chemical science; and, that they actually existed at this early period in Hindostan, every body will be convinced who attentively turns over the pages of Menu’s Institutes in the chapters that have reference to their mechanical arts and yet unrivalled manufactures. In those pages we find them, as I have truly stated in my Dissertation on the Commerce of this ancient people,* engraving on the hardest stones, and working in the most difficult metals; giving the most beautiful polish to the diamond, an art supposed not

* Halhed’s Gentoo Code, Preface, p. 29.

† Vol. vi. p. 363.

to be known till the 15th century; enchasing in gold, and working in ivory and ebony, with inimitable elegance. In weaving, spinning, and dying; in all the more ingenious devices appertaining to the respective occupations of the joiner, the cutler, the mason, the potter, and the japanner; in executing the most curious cabinet and filligree work in gold; in drawing birds, flowers, and fruits, from the book of nature with exquisite precision: in painting those beautiful chintzes annually brought into Europe, that glow with such a rich variety of colours, as brilliant as they are lasting; in the fabrication of those ornamental vases of agate and chrystal, inlaid with the richest gems, that constitute so large a portion of the splendid merchandize of India with the neighbouring empires of Asia; in short, in whatever requires an ingenious head or a ductile hand, what people on earth, in those remote or in these modern times, has ever vied with the Indians?

The selection of a very few passages from those celebrated Institutes, since the *Vedas* are not yet accessible, will be sufficient to prove the truth of the preceding statement. With respect to their skill in exploring *mines* and fabricating *metals*, in *enchasing* in gold, in working in *ivory*, in *piercing gems*, and in *dying*, we read;

“ Day by day must the king, though engaged in forensic business, consider the great object of public measures, and inquire into the state of his carriages, elephants, horses, and cars, his constant revenues and necessary expenses, *his mines of precious metals, or gems, and his treasury.*” Institutes, p. 243.

“ Of brilliant *metals, of gems, and of every thing made with stone, (as pots or vases,) the purification ordained by the wise is with ashes water, and earth.*” P. 137.

“ A *golden* vessel, not smeared, is cleansed with water only; and every thing produced in water, as coral-shells or pearls, and every stony substance, and a *silver* vessel, not *enchased.*” Ibid.

“ Vessels of *copper, iron, brass, pewter, tin, and lead,* may be fitly cleansed with ashes, with acids, or with water.” Ibid.

“ Utensils made of *shells* or of *horn, of bones* or of *ivory,* must be cleansed by him who knows the law, as mantles of *cshuma* are purified.” Ibid.

In page 261, we find punishments ordained “ for mixing impure with pure commodities, for *piercing* fine gems, as diamonds or rubies, and for *boring* pearls or inferior gems improperly.”

“ All woven cloth, *died red* cloth made of

Sana, of cshuma bark, and of wool, *even though not dyed red*, are prohibited the mercantile Brahmin." Ibid.

That the ancient Indians also knew how, by fermentation, to obtain ardent spirits is evident from the frequent prohibition of intoxicating liquors enjoined on the Brahmin tribe.

"*Inebriating liquor* may be considered as of three principal sorts ; that extracted from dregs of sugar, that extracted from bruised rice, and that extracted from the flowers of the Madhuca : as one, so are all ; they shall not be tasted by the chief of the twice-born." P. 320.

There are scarcely any of the mechanical branches of trade, especially those of a more costly kind, in which a knowledge of chemistry is not more or less necessary ; and these have ever flourished throughout India in earlier times and in a higher degree of perfection than in any other country of Asia. In short, the philosopher wanted chemistry for experiment ; the artist for practice, in a thousand different ways. It opened the path of the former into the inmost recesses of nature, and taught him to imitate her various and wonderful power of resolving, separating, combining, and transmuting, the elementary particles of matter that compose the vast globe which we inhabit. It enabled him to account for phænomena otherwise utterly inexplicable ;

he no longer beheld with superstitious horror the bursting volcano, the *aurora borealis*, and other terrific meteors; he soon learned himself to roll the thunder and launch the lightning of Jove; he stole fire from heaven, and lighted up, in the laboratory, a creation of his own. The latter matured the projects and realized the hopes of the philosopher. By practical chemistry he extended the bounds of mechanic science, he widened the field of commerce, and strengthened the bands of social intercourse.

A variety of proofs of this kind have been already adduced. A few more, and a general summary of what has been observed on this head, shall now be added, and conclude this article.

Like the Phœnicians, their rivals in whatever concerned trade and the arts, the Indians had arrived at considerable excellence in making glass, *vasa murrina*, or *murrhins*, a species of elegant porcelain, much in request among the higher order of Romans, and artificial gems of various colours, which were often fraudulently imposed on strangers for genuine ones. They were also celebrated for their curious work in horn and ivory, and their being able to soften down those hard substances to receive impressions of Avatars and other figures, their inlaying them with different precious stones, and

staining them with the most beautiful colours, are all processes intimately connected with this science. Various kinds of dyed leather are repeatedly mentioned in the Institutes, and therefore they must also have known the method of tanning and colouring that commodity ; and we have already mentioned the vivid and durable colours, particularly the *red* and the *blue*, for which their cottons and silks have been so famous in all ages ; but these colours could not have been obtained, or so indelibly fixed, without a very high advance in chemistry. Their ability to obtain *arrack* and other intoxicating liquors by fermentation ; their method of extracting sugar by coction, from the cane ; of oils, unguents and essences, by distillation ; or assaying and refining metals ; of enamelling ; of lacquering ; of gilding ; of varnishing ; of japanning ; of making the finest porcelain ; of fabricating artificial fire-works and gunpowder ; are all so many direct proofs of what is here contended for. In short, trade, like agriculture, is indebted to chemistry for nearly all the various tools and utensils used in its innumerable branches ; and without it, the painter, the potter, the sculptor, the carver and gilder, all the classes of working smiths whether in gold, silver, copper, or iron, the tin-man, the pewterer, the plumber, the glazier, the distiller, (and all these trades are

occasionally alluded to in the Institutes,) could not have pursued their respective occupations, those occupations let it be still remembered, in which they were unchangeably fixed by the Indian legislator twelve or fourteen hundred years before Christ, when in most other countries CHEMISTRY was in a state of comparative infancy.

CHAPTER II.

HYDRAULICS.—*The great Veneration paid by the Indians to the aquatic Element, in great Part the Result of their physical Investigations into its Properties and Qualities — The Obligation they were under of forming vast Reservoirs, in various Regions of Hindostan, remote from the great Rivers, and of raising by PUMPS and conveying by CANALS the Waters to their Rice-Grounds, necessarily rendered them acquainted with the Principles of this Science.— Their Manufactures, also, especially their chemical Processes in Medicine, Distilling, and Dying, required SIPHONS and other hydraulic Machines.—PNEUMATICS.—This Science intimately connected with their mythological Superstition.—INDRA, VAYOO, and their stormy Attendants, only the ATMOSPHERIC PHÆNOMENA personified.—The great Vicissitudes of Weather that take Place during the different Seasons in so vast an Empire and so varied a Climate; one Region chilled with the Snows of Caucasus, and the other parched with equatorial Fervors; The tremendous Tornado, and the pestilential Blast rendered the ancient Indians too well acquainted with those Phænomena.— Their metallurgic Operations required the Aid*

of vast BELLOWS for their Furnaces.—Their Mines could not have been explored and wrought without AIR-SHAFTS and other pneumatic Machines, nor without greatly enlarging their Knowledge in this Branch of Science, which they made useful in the Mysteries practised in their subterraneous Caverns.—Probably not unacquainted with ELECTRICITY and MAGNETIC ATTRACTION.—PAINTING.—The exquisite Beauty of the Flowers and the brilliant Plumage of the Birds of Hindostan had the Effect to make the Indians PAINTERS in very early Periods, as well as to give them a decided Superiority over all the ancient World in the vivid Lustre of their DYES.—Their peculiar Method of PAINTING on COTTON described from Pliny and modern Authors.—A short History of their SILK and COTTON Works.—Their ancient Manufactures of PORCELAIN and COLOURED GLASS.—Additional Observations on their SCULPTURE and ARCHITECTURE.—ENGRAVING ON GEMS.—The high Antiquity of this Art in India.—The Kind of precious Stones principally selected for this Purpose, and the Devices engraved on them.—The infinite Variety and Neatness of their JEWELLERY and GOLD WORK.

HYDRAULICS.

THE lotos, suspended aloft in a thousand temples of India and Egypt as the picturesque symbol of that humid principle, which the emanation of the eternal beam, piercing the darkest recesses of the chaotic waters, animated and rendered prolific, demonstrates the strong traditional veneration for the aquatic element, which descended down to the generations of Asia from the first speculative race of human philosophers. Their conceptions concerning the union of these two grand principles, and the consequent generation of all things, were sometimes expressed by flames issuing from the calix of the lotos, sculptured in form of a vase, which indeed its natural shape greatly resembles; and, at others, that calix is encircled with a radiated crown of flames, just mounting above the burnished edge, to mark the superior energy of fire over water. This is the invariable meaning of the ancients, when either Brahma, Seeva, Osiris, or Horus, are portrayed sitting upon that sacred plant: they are only emblems of the solar fire warming and invigorating the chaotic waters. This their constant and immemorial deification of the ele-

ment of water, and their profound admiration of the astonishing qualities possessed by it of pervading, cherishing, and dissolving all things, the effect of philosophical investigation, must necessarily and naturally have induced an acquaintance with many branches of Hydraulic science.

Indeed the doctrine of Thales, that is, of the Ionian school, *aquam esse initium rerum*, may be fairly said to have flourished in its vigour in the earliest post-diluvian sages. From the same traditional fountains, whence they obtained their information, Moses also acquired his knowledge in regard to this wonderful element; and from the Mosaic and Egyptian school it was diffused among the philosophers of Greece. From the extravagant honours which they paid to it, the first race of Indians seem to have considered water as the universal stamen, or grand elementary matter, out of which, by the aid of the *igneous* principle, all things proceeded and into which their physical researches shewed them they would all by putrefaction be again resolved. As it seemed to possess all the energetic properties of deity, they therefore exalted it to the rank of a divinity, and made it the object of their adorations. Now it can scarcely be credited, that those whose constant practice it was, (at least if we may form a

judgment of their conduct by that of their present progeny in blood and religion,) with holy enthusiasm, to explore springs and consecrated rivers; and whom necessity compelled to form vast tanks, for the purposes of agriculture, in the scorched regions of India ; that those who were accustomed to hew out magnificent baths for superstitious ablutions; and who, though perhaps ignorant of the cause, witnessed the alternate swell and depression of the waters of the ocean, attracted by that moon whose resplendent orb they adored with scarcely less fervour than her radiant paramour, especially those of her philosophic race, who were situated nearer the tropical regions, where the tides rise with an awful elevation, or on the gulphs of the Ganges and Indus, the *bore* (as it is called) of which latter river rises often to the prodigious height of between twenty and thirty feet; and who had likewise surveyed and considered the stupendous column of suspended water in the phænomenon of the *typhon*, or water-spout, so common in equatorial climates; could be entirely ignorant of the properties and laws of FLUIDS. It is scarcely possible that those, who could wield with ease and skill the ponderous instruments of the forge, wanted either wisdom or vigour to fabricate many of the implements used in this branch of science,

although they might not possess the more powerful, stupendous, and complicated engines of modern times.

If what has been said above, relative to the knowledge of the Indians on this subject, should appear extravagant, I may safely shelter myself from censure under the opinion of many learned men among the moderns, who, from what the fathers of human science have delivered down to posterity concerning the chaotic state of things, and the universal fluid in which the earthy particles were suspended, have urged the high probability of the Newtonian doctrines, respecting gravity, fluidity, and centrifugal force, having been known in remotest antiquity, though afterwards, in the wreck of science and the revolution of empires, totally forgotten and lost, till revived again by that immortal philosopher. Indeed, we have seen this fact expressly asserted by Sir William Jones, in respect to the Indians, under the head of Astronomy.

The great distance of time, and the numerous revolutions that have befallen the Indian empire, added to the present deplorable ignorance of the Brahmins, leave us in doubt to what point in practice they carried their extended speculations in this branch of science: but that they were not merely *theoretically*

acquainted with it must be evident from one or two observations with which I shall conclude this head of enquiry

The great variety of artificial FOUNTAINS, some of vast magnitude, which the ancient sovereigns and great rajahs of India were accustomed to have in those extensive gardens in which they took such high delight, and the refreshing coolness of which was necessary to mitigate the heat of that burning climate, affords very evident proof that they were well acquainted with this science. They had observed that clouds, breaking on the summits of mountains, discharged upon them their watery treasures, which, sinking into the chinks and pores of the earth in those elevated regions, rushed forth with violence from their sides or at their base in the form of springs and fountains. The imitative genius of the Indian marked her plastic power, enlarged the sphere of speculation, and filled with fountains and *jets d'eau* the delicious gardens of Delhi and Agra.

But, independently of these their accurate observations of nature and her operations, they could scarcely fail of learning the great principles of hydraulic science, before the Indian empire was formed, from their Assyrian ancestors; from that Bali, or Belus, who stands nearly at the head of their great solar dynasty

of sovereigns, when they formed a part of the vast Iranian empire, which comprehended nearly a third of all Asia. In Assyria they could not fail of being well known, as every body must be convinced who has read the account given by Diodorous* of the hanging gardens of Babylon, with their lofty terraces extending gradually up to the summit of the walls, which were two hundred feet in height, and at that stupendous elevation were refreshed with water forced up by immense engines from the bed of the Euphrates.

But a farther knowledge of Hydraulics was necessary to the existence of a very large proportion of the Indian nation; and though in the course of ages, they have, in respect to this as well as other sciences, sunk down into a very degrading state of ignorance, the danger of perishing by *famine* still preserves among them a portion of the science sufficient for the proper distribution of the waters, contained in their great tanks, over the champaign country, which is represented by M. Sonnerat as universally divided into parcels of about one hundred or one hundred and twenty yards square.† In these that valued grain, the rice, which constitutes the principal food of the

* Diod. Sic. lib. i. p. 98.

† Sonnerat's Voyages, vol. ii. p. 130.

Indians, is deposited and grows up to maturity in water only ; but, as the greatest part of the lands is dry and sandy, hydraulic machines were necessary to elevate and abundantly distribute that water to the thirsty plant. These machines are, indeed, extremely simple in their fabrication, but they are effective ; engravings of them may be seen in Sonnerat.

Another danger equally alarming, that of perishing by *thirst*, impended over them if they totally neglected this branch of philosophy ; for, in regions remote from the great rivers, they only obtain water from wells sunk to a vast depth in the sand and clay ; and, from these, the necessary fluid could not be obtained except by *pumps* and other engines, of various constructions and dimensions. They could not have constructed the canals and sluices necessary to convey the water from one district to another over vast sandy plains without some proficiency in this science ; nor could many of their mechanical operations, where fluids were concerned, as, for instance, when spirits and essential oils were to be extracted by distillation, be carried on without the use of *siphons*, or similar hydraulic vessels.

PNEUMATICS.

Having discoursed thus largely concerning the adoration paid by the Indians, on account of their important utility to man and life, to the elements of *fire* and *water*, it would be improper to omit noticing their equal veneration for the *æthereal* element, which was so great as to lead them to personify and exalt it into a deity under the name of Indra, the god of the firmament, a deity armed with all those formidable insignia, and invested with that unbounded empire over subject nature, which the Grecian mythologists have conferred on their Jupiter. The stormy prime minister of Indra, in the government of his wide aerial domain, is VAYOO, the god of the winds, who is expressively represented in their pictures as riding furiously from one point of heaven to the other, on a swift antelope, and brandishing in his hand a sabre gleaming like lightning.

In fact, the immense vicissitudes of climate naturally to be expected in so extensive a country as India, and the tremendous irregularities of it which actually take place in certain districts of that country, are the principal source of the great powers with which superstition

nas armed this imaginary divinity ; for, Indra is not always the object of delight and love to the adoring Hindoo. If sometimes he descend, like the æthereal Jove of Greece, in genial showers; he is at other times attended by a ghastly train of deadly vapours and pestilential blasts. Those who live on the coast, and feel the soothing influence of *air in agitation* in the cool and balmy breeze that blows every morning from off the ocean upon the land, have great reason to exult in the blessings bestowed by Indra ; while those again cannot avoid trembling at his power, who breathe the burning atmosphere, and contend with the drifted sands, of the scorched plains of Berar. The cerulean fields, that constitute the domains of the Indian Divespiter, are in truth the scene of their wildest and, I may add, their most gloomy mythology: they are fraught with objects which excite alternate transport and dismay. The comet portentously blazing through a vast tract of illumined æther filled them with dire and inexpressible alarms ; with superstitious reverence they marked the coruscations of the *Aurora Borealis*, or observed the boding meteor glide down the nocturnal heavens ; and they heard the awful report made by its explosion, amidst the dead silence of night, with unutterable terror.

It is scarcely possible, therefore, to conceive a nation, who thus accurately observed the phænomena of the heavens; for, their mythological legends concerning Indra and his stormy prime minister are merely allusions to those phænomena; a nation, who from them drew presages the most important and interesting, to have been ignorant of the nature and properties of an element to which they had so minutely attended, and consequently the principles of PNEUMATIC SCIENCE must in a degree have been known to them. They must have known that *air*, not less than *water* and *fire*, served to form, as it were, the grand cement and universal bond of nature, equally pervading and cherishing the whole animal and vegetable world. On the lofty mountains, whose summits the first race of Indians, escaped from the deluge, chose for their residence, Nature, the great chemist, as well as the sun's powerful beam, acting more immediately upon the atmosphere of equatorial regions, would soon teach them its wonderful quality of rarefaction and expansion; and its density and resistless power would not fail to be discovered at the period of the monsoons, those vast and ponderous columns of air in motion, which with irresistible violence at one time ravaged the shores of the Peninsula, breaking down the

strongest trees, and, like the hurricanes of the western world, sweeping every object before them; and which at others dispersed over the deep the rich cargoes of their various commerce, the produce of the silkworm, and the jewels of Golconda. Hence, perturbed and terrified, this superstitious race beheld the aërial phænomena with reverential horror: every cloud has its directing dæmon, and every gale its attendant dewtah. Superstition hears some perturbed spirit of the vasty deep raging in the midnight storm, and sees the angry deity launching over the Gauts the terrific and irresistible shaft of the tropical lightning.

How far the first race of Indians might carry into experiment and practice the philosophical observations thus made by them on the operations of nature in that various clime, it is impossible to decide, till their philosophical books shall have been more accurately examined; but that they were no strangers to the generative and invigorating influence of *air* acting forcibly upon other elementary matter, and particularly on the watery element, is indubitably evident, from the universal traditionary doctrine which runs through all the cosmogonies of the East, that, at the beginning of time, the *wind of God*, or *a wind from God*, (for, by this perverted title they generally denominate the

Πνευμα Αγιον of Scripture,) violently agitated the waters of the chaos and rendered them prolific. We have shown before, that the cosmogony of the Phœnicians affirms the principle of the universe to have been a dark wind, turbulent and boundless; and, in the latter part of that description, we read, that the *air* shining with *æthereal light*, by its fiery influence on the sea and earth, winds were begotten, and clouds, and great defluxions of the heavenly waters:

The ancient philosophers of India, like the stoics of Greece, who in all probability borrowed the doctrine from the Indian schools, which many of them visited or obtained them through the channel of Egypt, imagined a *fifth* element, formed of the more refined particles of igneous air, which they call the AKASS; that pure, transparent, luminous, æther, in which the planets and other celestial bodies roll. This subtile spirit, this penetrating fluid, they conceive to pervade all bodies, and to be the great principle of vitality and bond of all existence. They talk concerning it with transport; but, amidst their raptures, totally different from the atheistical fabricators of the Phœnician cosmogony, their greatest and most venerated philosophers of the VEDANTA school never forget to advert to the SUPREME CREATIVE SPIRIT of the universe from which it emaned, his august repre-

sentative and powerful agent in the animation and direction of boundless worlds.

A knowledge of pneumatic science was also, in a great degree, necessary to the carrying on many of the mechanic arts for which the Indians were so famous ; and if they were so far advanced in chemistry, in the earliest ages, as there is every reason to suppose they were, they must have required, for their furnaces, machines for collecting, compressing, and discharging, the current of air, in a body forcible enough to promote their respective operations ; and these must, in consequence, have been of various dimensions, from those that excited the intense flame, where the rugged ore of iron was fused, to the gentler blast necessary to perfect the exquisite work of the goldsmith and the enameller. The invention of the BELLOWS is, indeed, ascribed by Strabo to Anacharsis, the Scythian ;* but is far more likely to have originated among a race represented, from all antiquity, to have been practised in metallurgic science, and devoted to those mechanic arts, which most wanted the assistance of that useful implement.

It was also utterly impossible that mines could be worked to any great depth or extent, without the assistance of what are called *air-shafts*, or certain tubes formed of wood or metal,

* Strabonis Geograph. lib. vii. p 209.

by way of vent for the discharge of fiery damp and sulphureous vapours, and the conveyance of fresh air for respiration to the miner. In those mines they learned the nature of the various species of air, and, imitating what they there observed, were enabled, amid their mystic rites, to put in practice those midnight phænomena which excited the wonder of the weak and the terror of the superstitious.

From the awful and terrific scenes exhibited in the MYSTERIES, from their acquaintance with the process of making gunpowder, and a variety of other circumstances that argue no superficial knowledge of the properties and effects of different kinds of air, it may reasonably be inferred that the old Indians were not entirely strangers to ELECTRICITY; for, in fact, that fine subtile spirit, pervading all things, that fifth element, that *akass*, as they term it, seems to be no other than what modern philosophers denominate the *electric fluid*. Indeed, Sir William Jones amply justifies this supposition in his Treatise on the Philosophy of the Indians, declaring, that, without wishing to pluck a leaf from the never-fading laurels of Newton, he discovers, in Sanscreeet Authors, a great part of his admirable philosophy, especially those parts that relate to that subtile spirit which he suspected to lurk concealed, but not

dormant, in all bodies, and to cause “ attraction and repulsion ; the emission, reflection, and refraction of light ; ELECTRICITY, calefaction, sensation, and muscular motion ; and that the Vedas abound with allusions to a force *universally attractive*, which they ascribe chiefly to the SUN, thence called *Aditya*, the ATTRACTOR.”* The mention of the doctrine of attraction naturally leads to reflections on that of the MAGNET, whose power to attract iron they must have well known, if, as there is every reason to presume, from their early voyages and their intimate connection in commerce with the Phœnicians, they had the knowledge and experience of the COMPASS in navigation, an experience which they might have obtained from Noah himself, to whom the deity probably imparted the secret of its wonderful virtues, to guide the bark which contained the precious deposit of all living creatures over the waters of the boundless ocean. Its attractive force could have excited no great surprise in a race, who, in their beautiful manufactures and ornamental furniture, made such large use of the genuine ELECTRUM ; that *amber* which has ever been in such high request in the cabinets and museums of Asia, and the attractive properties of which were so well known, so much

* Asiatic Researches, vol. iv. p. 177.

admired, and so often, in their writings, referred to by the Oriental as well as Grecian philosophers.

PAINTING.

From the regions of philosophy, where much was of necessity left to analogy and conjecture, we come to fact and experience; and are now to investigate the history of the progress of the ancient Indians in arts and manufactures, especially in one art for which they have ever been famous, and with great justice, so far as a nation utterly strangers to *perspective* could obtain celebrity in this line of exertion.

It is probable that the unrivalled beauty of the objects, animate and inanimate, in the southern district of India, the gaudy plumage of the birds, and the vivid colours of the plants and flowers, forcibly impressed upon the mind of the admiring Indian, first induced him to seize the pencil, and endeavour to imitate the strokes of nature. Those colours in the tropical regions, and under the beam of a vertical maturing sun, are exalted to an uncommon height of brilliancy, and, after the rains especially, exhibit a scene the most picturesque and lovely the eye can behold.

Though their pictures, in consequence of their ignorance of the method of distributing to advantage the lights and shadows of a piece, which the European artists call *chiaro-obscuro*, are destitute of all *relief*; though also they pay very little attention to the rules of just *proportion* in delineating animal figures on the surface of silk and cotton; whatever care they might have taken in the sculptured images of human figures, in which they could scarcely be guilty of any gross offence against those rules; and though the laws of perspective, so necessary to produce effect in that art, are, as just remarked, unattended to by the Indian artists; yet the delicate strokes of the Indian pencil, especially when employed in portraying the lovely plants and flowers of their country, added to the vivid and permanent glow of the colours they made use of, have, in every age, gained them the admiration of all nations, who have given convincing proof of that admiration, by suffering India, in exchange for the commodities thus richly ornamented, to engross the bullion of the whole world.

Religion itself seems to have greatly promoted as well as sanctioned this art in India; for, we have seen, in the fifth volume of this work, that, from the very dawn of their religious institution, the various casts have been

distinguished by different colours, it being the indispensable duty of the Brahmin, when in the morning he opens the portals of the pagoda for public worship, at their entrance, to mark the crowd of votaries on the forehead with the *TILUK*, a painted longitudinal or parallel line, either of vermillion or saffron, as they may happen to belong to the sect of *Veeshnu* or *Seeva*. *Brahma*, *Veeshnu*, and *Seeva*, are themselves painted of three distinct colours; and indeed all the deities in their pagodas are gaudily decorated in the same manner as were those of their forefathers, the Chaldæans, according to the imagined colours of their seven *dii majores*, the planetary train.

As I am bound by my proposals to compare the progress in scientific attainment of the Indians with that of their Asiatic and Egyptian neighbours, I shall take that parallel survey previously to any particular discussion of the processes employed by the Indians in painting on silk, cotton, and other materials.

Plato is of opinion that the Egyptians had practised painting during ten thousand years.* Pliny, somewhat more moderate in his calculation, fixes the period of its commencement at six thousand years † before his time. What particular object either of these authors could

* De Legibus, Dialog. 2. † Pliny Nat. Hist. p. 301.

have in view, by pretending thus accurately to determine the epoch in question, it is difficult to say; but, in various preceding accounts of Egyptian remains, presented to the reader from Pococke and Norden, we have seen, that, both on the roofs of the temples of the Thebais, and on the walls of the grottoes that border on the Nile, the colours and gilding, after the lapse of nearly three thousand years, had preserved unimpaired their dazzling brilliancy. This singular phenomenon may in part be explained by the clearness of the atmosphere in a country where scarcely a cloud obscures the horizon, and where very little rain falls, and partly by the superior excellence and durability of the colours themselves, which, in all likelihood, they obtained from India, or rather brought with them when their ancestors first emigrated from its shores; since the RED and the BLUE, the standard colours of that country, are particularly noticed by those travellers as the predominant ones.* Those celebrated writers of antiquity, therefore, by such strong expressions, could only have meant to deliver it as their opinion, that, for the depth and freshness of the colours, they were well calculated to have lasted during those extended periods. To be

* Lucas, vol. i. p. 99. Pococke, vol. i. p. 199. Bruce's Travels, vol. i. p. 126.

convinced, indeed, of that superior excellence, we need only attentively examine the hieroglyphic painting on the mummies in the British Museum, which cannot be of a date greatly inferior to three thousand years; for, both the gilding on the face of the one, and the pictured imagery on the other, are as fresh as if not above a century old.

If we cast our eye back towards Assyria, in the temple of Belus, as described by Diodorus, we shall find a very early and astonishing specimen of this art in Asia. The hand of the painter had decorated the walls and the cieling with emblematical designs allusive to the birth of nature and the first principles of things: some of the figures, like those of India, combining in one androgynous body the two sexes, an undoubted perversion of that text, *male and female created he them*; and others being compounded of the parts of man and beast. This marked resemblance in the symbolical paintings of the two nations affords another striking instance of the truth of the grand pervading argument of these volumes, founded on the basis of Scripture, that Chaldæa (not Scythia, as Bailli contends) was the parent country of the Indians as well as of the whole human race. Let it not be forgotten that they could not have formed these vivid colours, or

fixed them so immutably, without a very considerable advance in chemical science. The figures in these pieces of imagery were doubtless very rudely designed and ill proportioned, such as might be naturally expected in the infancy of science; but the energy of the expression and the lustre of the colours are not affected by this concession.

A farther evidence of the progress of the Assyrians in this art is afforded in the *paintings* which are recorded by the same author to have decorated the walls of the magnificent castle and palace, afterwards built, by Semiramis at Babylon, on which were painted, to the life, all the kinds of animals in their natural colours; and, as these colours are expressly said by Diodorus to have been laid on the bricks, *when newly made*, and afterwards *burnt in*, it shews that they understood the art of working in ENAMEL. We must not wonder, therefore, to find the Indians, in a few ages after, excelling in this kind of work, as well as in the manufacture of the finest porcelain.

With respect to Persia, I consider what in preceding volumes has been related concerning the splendid decorations of the roof of the cave of Mithra, the *blue* vault spangled with stars of *gold*, the zodiacal constellations which emblazoned the walls, and the animals of that

zodiac, all in their natural *colours*, as alone affording very ample proof of their advance in this art. That remarkable theological symbol, also, which they used in those caverns, the ladder, with the *seven* gates named from the *seven* metals, ascending to heaven, may serve to prove that they knew sufficient of chemistry, even at that early period, to exalt and to fix those colours. Hence the Persian works in embroidery, their rich tapestries, and carpets of flowered silk, were in not less high request through all antiquity than the painted cotton and fine linen, or *sinclon*, of India. Before I quit this subject, I cannot help remarking the striking similarity between the ladder that reached to heaven, in Abraham's vision, and this symbolic ladder of the Persian magi. Terah, the father of Abraham, must have been skilled in metallurgic science; for, he was a maker of TERAPHIM, *i. e.* of idols cast in brass or copper, under the aspect of certain planets. Either, then, Abraham, seizing this idea of the magi, sanctioned a symbol, which was only a harmless, but expressive, emblem of the gradual ascension to heaven of the purified soul, in the immortality of which the Persians believed; or, what I own is more probable, the Pagans from his dream caught the image, and introduced it into the mysterious rites of their de-

graded superstition. At all events, the fact proves the high antiquity of the symbolical allusion, and not less of their chemical knowledge, since Abraham flourished near two thousand years before Christ.

To return to the Indians; and to consider, first, their method and the materials used in painting on cotton. The more pure from mixture, the more lively and beautiful, though not more permanent, are said to be the colours. In their first efforts to excel in this line, the Indians probably used only the simple expressed juice of flowers and shrubs, the most vivid they could select. Fossil earths of various colours, as ochre, the yellow and the red, might afterwards be employed; and, lastly, as they advanced in chemical knowledge, minerals lent their aid to exalt their tints, to give them stability, and increase their variety. The two prevailing colours on the silks and cottons imported from India are the deep blue and the bright red; and the basis of these is well known to be *indigo* and *gum-lac*. Indigo is formed from the leaves of a plant, which grows about two feet high, called *Indicum* by the ancients, from the river Indus, down which it was brought from Lahore, of which city formerly it was the staple commodity. Its native appellation is *NILI*, literally BLUE. The finest sort is however

cultivated about Biana and Agra, and the colouring substance is the *fecula*, or dregs, made by means of water and oil-olive out of those leaves. It is brought to us in cakes of so intense a blue as to appear almost black ; in consequence of which, when employed by the painters, it is obliged to be ground up with white, or it could not be used with effect. That species which is brought from the West Indies is of inferior fineness to what is imported from the East ; for, it is made of the whole plant, stalk, and leaf, macerated together, and consequently has many impurities blended with it. The West-Indian species is, therefore, only used in dying, while the finer sorts of indigo are still used by painters both in Asia and Europe. To render indigo in this country totally soluble for the purpose of dying, it requires an equal quantity of *fixed alkaline salt*. On digesting this with a gentle heat, the matter first appears copper-coloured, then of a deep green. The substance dipped in it comes out perfectly green ; but, when exposed to the air, almost instantly changes to a fine blue.

The *gum-lac*, or LACCA of the ancients, has been mistaken for a vegetable production, but is in fact an animal substance, somewhat of the nature of cochineal, and is the production of an insect, resembling a bee, which deposits this

glutinous sediment on the branches of certain trees, adhering to which it is brought to us, and thence bears among commercial men the technical name of *stick-lac*. The colour is obtained by simply boiling the stick-lack in water, then filtering the decoction, and evaporating the superfluous humidity. With these two colours, but not these only, since India affords innumerable other vegetable as well as mineral substances adapted to the purpose, are the beautiful calicoes produced in her looms, painted or stained; and, though the ingenuity of European artists, with the aid of highly improved chemistry, have, in the place of these beautiful and durable colours, invented others possibly better adapted to painting in its present advanced stage of excellence, when the gradation of light and shade in pictures is to be so distinctly marked, yet none have hitherto rivalled those of India in united brilliancy and permanency; and could the genuine Oriental *indigo* and *lac*, in their purest state, be obtained, they would perhaps still prefer the former to the best ultramarine and Prussian blue, and the latter to even vermillion, carmine, and all the factitious *lacs* in the whole class of red colours. In the practice of the Indian artist, however, there is no vicissitude; the mode of painting and dying used twenty centuries ago, when Greece

and Rome exchanged their hoarded bullion for her productions, still prevails; the cottons are prepared by some chemical process, unknown in Europe, to receive the various colours intended to be impressed either by the pencil or in the vat, and they retain them, while the substance on which they are impressed exists, with little alteration.

To be more particular in regard to their mode of painting the cottons in India. M. Sonnerat, after confirming what has been just observed concerning the brilliancy of the colours being heightened by some previous preparation, and the quality of the water in which the linen is whitened, adds, "When the outline is drawn, the linen receives the first washing: an ordinary workman then extends it on the ground, and, sitting down, puts on the principal colour. After a second washing, a more skilful artist extends the cloth on a small narrow table, and marks the shades. Their pencils are made of a piece of BAMBOO, pointed and split; an inch above the point is a cushion of wool, to retain the colours, which the artist presses to make the liquid descend the length of the reed."* In the dying of cottons of different colours, an art practised by ancient as well as modern Indians, a still greater pro-

* Sonnerat's Voyages, vol. ii. p. 122.

ficiency in chemistry was necessary to fix the various tints. In painting these cloths they undoubtedly pursued a process somewhat similar to the Egyptians, so minutely described by Pliny: after having drawn the outlines of their design upon the piece of linen, they filled each compartment of it with different sorts of gums, proper to absorb the various colours; so that none of them could be distinguished from the whiteness of the cloth: then they dipped it for a moment in a cauldron, full of boiling liquor prepared for that purpose, and drew it thence painted in all the colours they intended. And, what was very remarkable, the colours neither decayed by time nor moved in the washing, the caustic impregnating the liquor wherein it was dipped having, during the immersion, penetrated and fixed every colour intimately through the whole contexture of the cloth.* Thus was the variegated *veil of Isis* manufactured; thus were the linens that folded the Egyptian mummies stained; and thus only could the chintzes of India receive their beautiful and varied dyes. De Pauw asserts, that, with the Egyptians, only one dark dye was used; and, by the aid of *acids* and *alkali*, the cloth received three or four different tints. It was necessary, he adds, to trace previously all the

* Plinii Nat. Hist. lib. xxxv. cap. ii. sec. 42.

figures with a feather or a pencil, that the *caustic* and *alkaline* liquids might be distributed exactly on the places where they were intended to produce effect.*

How very early the ancients were acquainted with the art of extracting colours from vegetables, and applied them in dying, may be learned from Genesis, where it is said, that, to distinguish the first-born child of Tamar, *the midwife tied a scarlet thread about its arm*.† This, it will be observed, was in the eighteenth century before Christ; and in the time of Moses, two or three centuries after, we read in the following passage not only of the great progress of the ancients in the art of dying, but in several others intimately connected with the subject of these Dissertations.

And this is the offering which ye shall take of them; gold, and silver, and brass,

And blue, and purple, and scarlet, and fine linen, and goats' hair,

And rams' skins dyed red, and badgers' skins, and skittim-wood,

Oil for the light, spices for anointing oil and for sweet incense,

* De Pauw's Philosophical Reflections on the Egyptians and Chinese, vol. i. p. 206.

† Genesis, cap. xxxv. v. 28.

*Onyx-stones, and stones to be set in the ephod and in the breast-plate.**

At the same time how very familiarly the ancients must have been acquainted with some cyemical process for permanently fixing colours is evident from Arrian, who relates, that, amidst other spoil found at Susa by Alexander, were five thousand quintals of Hermione purple, which exceeded that of Tyre in beauty, and had been hoarded up there by the Persian sovereigns during the space of one hundred and ninety years, but the colour of which was as fresh and beautiful as if just come from the dyer.

Thus far have we considered the progress of the ancient Indians in the art of painting on cotton: their silks were probably enriched with the same splendid colours, in a way as nearly similar as their different texture would allow.

After all it is by no means clear that the Indians do not possess, traditionally handed down to them from their ancestors, some secrets relative to this subject which they have not imparted to foreigners. By means of the commerce which they anciently carried on with the Phœnicians they might have learned those secrets; for it has been suspected that the TIN which they so abundantly imported from the Cassiterides, or British isles, was made useful in their

* Exodus, cap. xxv. v. 3-7.

famous purple, and that they greatly exalted and fixed the colour by solutions of that metal in the dying materials.* What was really known to the Romans concerning the mode of dying the Tyrian purple has been very minutely detailed by Pliny, who informs us that after having procured from the MUREX, or purple-fish, a quantity of the colour sufficient for the purpose, they mixed it with salt, in which condition it remained during three days. To eight gallons of water they then added one hundred and fifty pounds of colour, which they boiled over a gentle fire, skimming the surface of the liquor from time to time, and occasionally dipping in it a lock of wool to mark the progress to maturity of the *materia tinctoria*. In about five hours it became perfectly clear, bright, and fit for use.† The prepared wool was then steeped in the dye five hours; it was then taken out, dried, carded, and again soaked in the vat; and, being once more dried, was delivered to the manufacturer to be spun and wrought into cloth. This was the celebrated *Διβαφα*, or double-dyed Tyrian purple, a pound of which, we are informed by the same author, was valued in Rome, at a *thousand denarii*, or upwards of thirty-two pounds of our

* See Pryce's *Mineralogia Cornubiensis*, p. 17.

† Plinii Nat. Hist. lib. ix. cap. 38.

money.* Whether the Tyrians, however, were or were not accustomed to use solutions of the metals for this purpose, it has been observed by a good judge in these matters, as a thing *extremely probable* at least, that the Indians of the present day, to impart the fine, bright, and durable colours to their calicoes and chintzes, make use of metalline solutions, since some of those stained calicoes having been kept for forty or fifty years, the bright colours have been observed to *eat out* the cloth, exactly in the same manner as the corrosive acid spirits, which dissolve metals, are found to do; and hence he concludes that it would be attaining to a high excellence if European artists, in painting and staining, could prepare the finest colours without employing either *acid* or *alkaline* salts, which are generally apt to prey upon the cloth, or other substance, stained with them.†

But, leaving the region of ingenious conjecture, we come in the second place, to consider the still more curious manufacture of SILK by the Indian mechanic, a manufacture for which they were as immemorially famous as for their admirable Sindon.

The little animal, the BOMBYX, that pro-

* Plinii. Nat. Hist. lib. ix. cap. 39.

† Dictionary of Trade and Commerce; article Calico.

duces this delicate thread, is scarcely less a wonder in the world of natural history than its production formerly was in the commercial world. The body of this insect, a species of the *phalæna*, is composed of a great number of elastic annuli, closely united, or rather interwoven with one another, and its heart, or rather a series of numerous hearts connected together, extends the whole length of its body. The beating of this chain of hearts, or rather, to speak more philosophically, the motion of *systole* and *diastole*, may be very distinctly perceived; and to observe the manner in which the vital fluid passes from one to the other forms a very curious and interesting spectacle. They were doubtless intended to accelerate the circulation of the fluids through the body. In the cavities of the belly, adjoining to the ventricle, the microscope discovers an infinite number of small vessels, forming a long bag or canal, in which is deposited the glutinous liquid whence the silk is formed, and these vessels communicating by a thousand winding meanders with the mouth, the little creature is enabled thereby to collect together and discharge at pleasure their contained fluids, which are hardened by the air into that delicate sort of fibre of which the web or ball consists. This little ball is the last effort of the expiring

insect, whose short period, at least in that state of its existence, is a year, and it is fabricated at the expense of its *being*, as a worm; for, having formed its nidus, it becomes metamorphosed into an aurelia, and continues in that state without any signs of life or motion, till in a few days, if not destroyed, as they generally are to prevent the ball being injured, it becomes a butterfly, and makes its way out of its silken sepulchre, in which it lay as it were interred, into fields of æther. These balls, when taken from the mulberry-trees from which they are suspended, are generally of the size of a pigeon's egg, are of a yellow colour, of an admirable construction, and are said to be composed of threads spun out, by the labour of the indefatigable architect, of many hundred yards in length.

Having thus described the curious animal from which this valuable article of Eastern commerce is produced, we come to the consideration of the commodity itself, the mode of its fabrication by the Indian artist, and other interesting matters connected with its history.

Silk derives its Latin name of SERICUM, from the *Seres*, a nation of northern Asia, by whom were doubtless intended the Chinese; but of the history of the commodity itself, or of the people who manufactured it, the Romans seem

to have been alike ignorant. Some of them considered it as the white down growing on the leaves of a certain Eastern tree; while others thought that it was produced from the entrails of a kind of spider, which they denominated SER; but all had very confused notions relative to its origin and fabrication. The small quantity of silk then produced by Serica was probably brought by caravans over the deserts, to the more western marts of Asia, and thence diffused among its luxurious sovereigns and nobles; for, in those early periods, it was only appropriated to the highest orders of society. I cannot, however, help being of opinion, that Serica was neither the original country whence silk was brought, nor that in which it was then most abundantly produced. The general principle on which this book proceeds leads to a different conclusion, and India appears to be the parent country of that valuable manufacture. How early, indeed, both the occupations above mentioned of cotton and silk weaving must have commenced in India is evident from this circumstance, that in the important account of Hindoo classes, from Sanscreeet authorities, in the fifth volume of Asiatic Researches, express mention is made of the tribe of *weavers*, under the title of TANTRAVAYA, in the original grand division of the Indian nation by MENU. The author

justly remarks, that “ the tribes of PUNDRACA, feeders of silk-worms, and PATTASUTRACARA, or twistors of silk, deserve particular notice ; because it has been asserted, that *silk* was the produce of China alone, until the reign of the Greek Emperor Justinian, and that the laws of China jealously guarded the exclusive production.”* The frequent mention of silk, however, in the Institutes, and other the most ancient Sanscreeet books, (even according to the confession of this author,) does, in my opinion, go very far to prove the superior antiquity of this branch of manufacture among the Indians, from whom the Chinese, when they emigrated, carried away with them the rudiments and utensils, as they did of many others. It was, indeed, impossible from the nature of the country, intersected with rivers and abounding with marshes, that China could have been inhabited and cultivated in earlier periods after the deluge than Persia and India, (famous in all periods for *silk* and *brocades*,) and the invention is therefore here, I trust, justly referred to the most ancient settlers. The region about *Serbind* in the soobah of Delhi, a soobah mentioned in the Ayeen Akbery as *abounding in silk-worms*,† was probably the

* Asiatic Researches, vol. v. p. 62.

† Ayeen Akbery, vol. ii. p. 106.

country where the first silk-manufactories were established, and *must* consequently be the *Serinda* whence, Procopius informs us, *silk* was brought in the time of Justinian.

The first step taken to prepare the silk for the manufacture is to clear it of the gummy substance which adheres to it, and which is done by throwing the balls into a cauldron of boiling water, which relaxes and purifies it; and then *winding* and *reeling* it off, as it is termed, into skeins on proper frames, which are alike simple with those on which they card and spin the cotton threads, and are used with similar dexterity by the pliant and rapid fingers of the Indian artist. It is then bleached, or blanched, by being repeatedly steeped in the lees of the burnt ashes of certain Indian plants, together with those of soap, mixed with a small portion of indigo, which gives the bluish cast always observed in white silks. The *throwster* then performs his task by reiterated twistings of the threads; after which it is consigned to the weaver to be formed into vests, sashes, and other ornamental fabrics for apparel and household furniture.

The process of *dying* the silk commences with a second decoction, and scouring of the substance again with soap-lees; after which it is steeped in alum-water, preparatory to re-

ceiving the various colours which that salt is useful in fixing. The *painting* of the silks is done in the same manner as the cottons, with the difference only of abler artists and more delicate pencils being employed. The *weaving* it into tapestry and carpets, an art in very early practice among the Indians and Persians, is among the most curious and elaborate efforts of Indian ingenuity, and, the silk being the finest in the world, the work would be the most valuable of any produced by the artists of Asia, were the elegance of the *design* and the justice of the *perspective* at all correspondent to the fineness and beauty of the materials. The greatest part, however, of the silk produced in Bengal and other parts of India is exported *raw*, and in its original yellow colour. In this state many thousand bales, weighing after the rate of one hundred and fifty pounds each, are annually imported into Europe, and evince as well the immense quantities of silk-worms bred in that country as the unwearied industry of the natives in the cultivation of them.

PORCELAIN, GLASS, and COLOURED STONES.

The great number and variety of the species of *argillaceous earth*, which abound in this region of Asia, together with the plastic property of clay, when merely moistened with water, would naturally lead the Indians to engage in works of pottery, which afford so excellent an opportunity of indulging a fancy peculiarly lively as theirs, in the fabrication of ornamental vases and other elegant articles adapted either to domestic use or foreign traffic. Devotion operated as powerfully towards advancing this kind of manufacture as the former; it taught them, as yet strangers to sculptured images, to mould the figures of their avatars, and all the symbols of their complicated mythology, of the purest kind of this brilliant clay; to harden them in the fire; to cover them with gold and azure, the colour of the sun and skies from which they emanated; and to exalt them on high in their abodes, as a kind of guardian *penates*, the conspicuous objects of their reverential respect.

Though their first efforts in clay and plaster must of necessity have been very rude; yet time, practice, and increasing idolatry, could

not fail to improve the Indian artist in this as well as other branches of mechanics; and they would make gradual advances in it till they were able to complete those more elegant specimens of skill, in porcelain, which were so highly valued by the old Romans; for, the *vasa murrhina*, though by some considered as fabricated of *chrysal*, and by others of *agate*, were, doubtless, only a finer species of Oriental porcelain. These, we are told by Pliny, were in such high request in the capital of the world as to be estimated, some that held three sextaries only, at *seventy*, and others of still larger dimensions, at *three hundred, talents*.*

Martial calls these vases *pocula maculosæ murrhæ*, *i. e.* cups formed of the earth *murrhæ* with variegated spots blue and red, on a white ground, which their skill in fixing colours by fire would easily enable them to insert into the very substance of the murrhins. The *murrhæ* is said to have been a fossible production, principally found in Carmania, on the western borders of India, and in Parthia, so that the Indians were probably potters before they quitted their first residence in Persia. At least the occupation of the *potter* repeatedly occurs, as the reader must have observed, in the extract from the Institutes; and there is a particular

* Plinii. Nat. Hist. lib. xxxvii. cap. 2.

class, or cast, formed on the first division of the Indians as a nation, denominated CUMBHACAFA, literally *the potter*.* We know, also, from the report of the Athenian ambassadors, who visited Persia before the invasion of Alexander, that *υαλινα εκπωματα*, or *vessels made of glass or porcelain*, were daily used in the luxurious court of Susa;† and, as we hear of no potteries or glass-manufactures established among the Persians, they probably were indebted for them to their connection with India. When the ancients mention glass, it is to be feared their precise meaning is not always very clearly to be ascertained; and, in this instance, the murrhins of India were most likely to have been meant by the Greek words cited above: *υαλινα*, however, is sometimes used so signify *chrysal*, and chrysal vases were equally the production of the Indian artists with the *vasa murrhina*. It was in Pompey's triumph that this latter splendid species of porcelain was first exhibited at Rome, and the specimens thus displayed, probably of great magnitude, were, for their high value, afterwards dedicated to Jupiter Capitolinus. But the luxury and extravagance of the Roman nobility did not permit them to continue long without these beautiful

* Asiatic Researches, on the Hindoo Classes, vol. v. p. 56. London, quarto edition.

† Aristophanes, Acharn. 1, 2.

ornaments to their tables and sideboards; however, their value decreased not in proportion as they grew more common, and they seemed still to be considered as precious at least as golden cups.

*Surrentina bibis ? nec murrhina picta, nec aurum
Sume; dabunt calices hæc tibi vina suos.**

The murrhins resembled also Oriental porcelain in bearing hot liquors without breaking; for, the same author, in another passage, tells us,

*Si calidum potas, ardenti murrha falerno
Convenit, et melior fit sapor inde mero.†*

I cannot but consider the inventive nation of the Indians as the masters of the Chinese in this and many other branches of manufacture; first, because Sir William Jones, as we have seen above, considers the latter people as emigrated Indians; and secondly, because in the above extracts from the institutes, mention is expressly made not only of the potter, but of sacrificial *vases of stone*, that is, earthy and siliceous substances formed by fusion into porcelain; and there is no authentic book of similar antiquity which mentions porcelain as then fabricated in China, though the Chinese have now secured to themselves, from having discovered in that more eastern region of Asia a finer earth

* Martial, lib. xiii. 110.

† Ibid. lib. xiv. 113.

denominated by them KAOLIN, nearly the whole of this lucrative commerce. In fact, there is no mention of porcelain as a manufacture of China in any existing author that I recollect earlier than the ninth century, when the two Arabian travellers, whose relations Renaudot has published, visited that country, and declare as follows. “The Chinese have an excellent kind of earth, with which they make a ware of equal fineness with glass and equally transparent.”* At this, if they were in reality Indians, there can be no wonder; but if they were of Tartar origin, I make no doubt but that they copied, from their more ingenious neighbours, the mode of making porcelain as well as many other mechanic arts. For, notwithstanding all that M. Bailli and M. D’Ancarville have urged in their behalf, the Tartar hordes seem in every age to have been little better than brave barbarians.

The very respectable traveller and writer, Father Bartolomeo, is of opinion† that the ancient Indians were total strangers to the art of *making glass*, and that what they had of this commodity was imported into India by the Greeks and Romans. He allows, however, the truth of Pliny’s assertion, that they well knew how to make artificial stones, and were parti-

* Ancient Relations, p. 21.

† See his Voyage to the East Indies, p. 391.

cularly celebrated for their just imitation of the BERYL.* This concession is very important; because, if they could give the colours requisite to form the imitations in question to siliceous substances or chrystal in fusion, they could not be far from the knowledge of making glass itself, though they might at the same time import, as is affirmed by the author of the Periplus in his enumeration of the articles of traffic carried on in his time between Alexandria and India, certain species of that more curious sort of vessels of glass ware which we shall consider presently, and for which the glass-houses of Diospolis were anciently in such high celebrity.† It is far more probable, however, that the first great merchants of antiquity, the Phœnicians, who monopolized in ancient periods the whole trade of India, had in those periods taught them the first rudiments of an art, universally attributed to their invention,—that of making glass from the fine sand that covered their shore; and had also communicated to them the secret of staining it of various colours to imitate precious stones; for, that they were thoroughly acquainted with the process is incontrovertibly evident from the great *column of emerald* formed by Phœnician artists, and which, according to

* Hist. Nat. lib. xxxviii. cap. 5.

† Periplus Mar. Erythr. p. 28, 30.

Herodotus, who saw it, adorned the ancient temple of Hercules at Tyre. That column was unboubtedly fabricated of glass* stained of the colour of that gem, and by night was probably filled with lamps, as it is said, amidst the darkness of the midnight hour, to have illuminated the whole of that august fabric. The learned author of the translation of Herodotus, a work equally valuable to the English reader for the fidelity of the text, and the various erudition displayed in the notes, especially those of a mythological allusion, is inclined to dispute this very early knowledge of the Phœnicians in the fabrication of glass; but he will candidly own that the voice of classical antiquity is at least very loud in favour of the judgment which assigns it to them. Among those classics eminently ranks that diligent collector of their opinions, Pliny, who not only expressly affirms what has been previously mentioned, that this ancient people first made glass from the very fine sand and pebbles on their shore, thrown into accidental fusion with the ashes of burnt vegetables that lay scattered over that shore, but, speaking of the manufactures of Sidon, intimates that they also knew the art of making *specula*,† glass mirrors; and, though they

* Herodotus, lib. ii. cap. 44.

† Plinii Nat. Hist. lib. xxxvi. cap. 22.

may not be allowed to have applied, in making them, that tin which they so abundantly imported from Britain, yet they knew how to procure, in some degree, a similar effect, by tinging the posterior surface with some opake substance, which would naturally cause images to be reflected from the superior.

The ancient mirrors, indeed, were not generally made of glass, but of metallic substances: from the context, however, it is most probable that *specula vitrea* were here intended; and the Sidonians were not the only ancient people who fabricated these glass mirrors, for they appear to have been also manufactured, at a very remote period, in the glass-houses of the great Diospolis, in Upper Egypt, in which city all the laborious operations of chemistry were carried to a high degree of perfection. In testimony of this, we have only to recur once more to those stupendous existing monuments of their skill in this respect, the mummies, some of them covered with GLASS of varied colours; on which subject, so much in point, let us again hear M. Dutens, who, on this topic at least, has certainly not advanced any thing that will not admit of strict investigation, and even of ocular proof.

“ There were also in those mummies of Egypt many things besides, which fall within

the verge of chemistry ; such as their *gilding*,* which is so very fresh, as if it were but of fifty years standing ; and their *stained silk*, still vivid in its colours, though after a series of thirty ages. In the Museum of London there is a mummy covered all over with fillets of granated glass, various in colour, which shews that this people understood not only the making of glass, but could paint it to their liking. It may be remarked here, that the ornaments of glass, with which that mummy is bedecked, are tinged with the same colours, and set off in the same taste, as the dyes in which almost all other mummies are painted ; so that it is probable, that this kind of ornaments, being very expensive, was reserved for personages of the first rank only, whilst others, who could not afford this, contented themselves with an imitation of it in painting.”†

This existing specimen of their skill is extremely curious and valuable ; but, if those who have recorded the history of the progress in science of the ancient Egyptians can be depended upon, they soared to a far greater height of excellence in this branch of chemical exer-

* “ The ancients also understood gilding with beaten and water gold.—Æs inaurari argento vivo iegitimum erat. Plin. Hist. Nat. lib. xxxiii. cap. 3. Vitruv. lib. vii. cap. 8.”

† Dutens’s Enquiry, &c. p. 241.

tion; for, they fabricated colossal statues of their gods and kings in coloured glass; and, according to Theophrastus, had erected in the temple of Jupiter Hammon an obelisk composed of four emeralds, that is, of glass of the colour of that gem, not less than forty cubits in height, and four in breadth.* Another colossal statue of Serapis, the Sun, nine cubits high, and consist- of one solid emerald, is mentioned by Pliny, from Apion, as in his time preserved in the labyrinth. Sesostris is also said to have presented to the king of the Lydians a statue of Minerva, composed of one emerald, four cubits high; and tradition has immortalized the great smaragdine, or emerald, table, on which the renowned Trismegistus, having engraved the secrets of the Hermetic art, caused it to be buried with him.†

Arrian, or whoever was the author of the Periplus, acquaints us, that, in the glass-houses of Thebais, they endeavoured to imitate the *vasa murrhina* of India; and that they made in abundance these false murrhins, in which they drove a considerable commerce with the Arabian and Roman merchants; but, as Pliny positively asserts that these imitative vessels were

* Theophrastus de Lapid. p. 394.

† Pliny, lib. xxxvii. sec. 19. Fabricius Bibl. Græc. lib. i. cap. 10, p. 98.

of glass, it is evident that the true murrhins were of a composition somewhat similar,—*i. e.* of a very fine species of porcelain almost as transparent as glass; but the Egyptian artists, wanting the proper materials of which the latter were made, were obliged to be content with remaining successful imitators only. The Egyptians would probably have made as fine porcelain had they possessed the species of argillaceous earth necessary; but, as I have before remarked, it was principally in the more elegant kinds of highly finished ornamental glass ware that they excelled; such were those three cups, of very curious glass, named *allassontes*, sent from Egypt by the Emperor Adrian to Rome, and which, *sicut palumborum colla*, like the NECKS OF PIGEONS, reflected, on whatever side they were viewed, a rich variety of colours, in the manner of the precious stone called *obsidianum*, supposed by some commentators to be *cat's eye*, and by others the *opal*. The Greeks, of whom the Egyptians were the masters in chemistry, soon learned of them the art of making these fictitious gems of all possible colours, the ruby, the hyacinth, the emerald, and the sapphire; for, thus Pliny, speaking of the former, observes: *fit et tinctura, ex genere obsidiani, ad escaria vasa; et totum rubrum vitrum atque non translucens, PCEMATINON* appel-

*latum. Fit et album, et MURRHINUM, aut hyacinthos sapphirosque imitatum, et omnibus aliis coloribus.**

It is time for us to return to the Indians, who are celebrated by the same writer for their skill in fabricating artificial BERYLS; that is to say, in making coloured, but not white, glass. It is scarcely possible to conceive, after a serious perusal of the previous extracts from MENU, but that the Indians were as ancient and as excellent chemists as the Egyptians; and, since all the precious stones above enumerated were native to the soil of India, as shall be shewn more at large hereafter, when we come to consider the antiquity of their engraving in gems, it is equally impossible to conceive but that, as they were first known, they were earliest imitated by the more ingenious race of Indians. The Indian sciences with their books are indeed buried in such profound obscurity, that here also we can alone argue upon the ground of analogy and conjecture; but the arguments for their having manufactured glass, in periods of great antiquity, amount to little less than certainty; for, I must repeat it, if they could make artificial BERYLS, they wanted neither means, nor genius, nor commercial incitement, to fabricate

* Plinii Nat. Hist. lib. xxxvi. cap. 26.

other similar compositions from siliceous substances; and if they were so early *potters*, it is scarcely possible, but that they could also manufacture glass vessels, though not perhaps, of such superior fineness as those of Sidon and Diospolis. The truth is, that, in all manufactures of pottery, owing to the intenseness of the fire made use of, some portion of the matter is necessarily vitrified, and the glass and pottery manufacture must have gone on together from remotest antiquity.

It is very probable, also, that the Indians understood the method of working in Mosaic; for, Philostratus tells us, Appollonius saw in India a most glorious temple of the Sun, the walls of which were of red marble, resembling fire, interspersed with streaks of gold, while the floor exhibited to the view an infinite variety of pearls and precious stones, artfully disposed in a kind of *chequer-work*, to imitate the rays of that luminary,* and which reflected back a lustre that rivalled his genuine beams. These were probably artificial stones of the kind under discussion, and this species of Mosaic work seems to have been not uncommon in the East; for, we read in Esther of a beautiful pavement of this variegated kind in the palace of Susa, when, at the great banquet given by the Baby-

*Vita Apollonii, lib. ii. cap. 11.

Ionian sovereign Ahasuerus, all the riches of his treasury were displayed to the view of the people. The passage impresses the mind with the most exalted idea of the magnificence in which those sovereigns lived, and is highly worthy of insertion in a work that enters so much at large into the splendid antiquities of Asia.

And, when these days were expired, the king made a feast unto all the people, that were present in Shushan the palace, both unto great and small, seven days, in the court of the garden of the king's palace;

Where were white, green, and, blue hangings, fastened with cords of fine linen and purple to silver rings, and pillars of marble: the beds were of gold and silver, upon a pavement of RED, and BLUE, and WHITE, and BLACK, marble.

*And they gave them drink in vessels of gold, (the vessels being diverse one from another,) and royal wine in abundance, according to the state of the king.**

The Egyptians too were no strangers to this kind of elegant work in Mosaic; for, Lucan, describing the luxurious palace of Cleopatra, acquaints us,

———— *totaque effusus in aulâ*
Calcabatur ONYX.

Which can scarcely have reference to any thing

* Esther, cap. i. v. 5, 6, 7.

except the tessellated pavement, of various coloured stones, in which the ONYX abounded.

On the whole, as the tribe of CUMBHACARA, or the *potter*, is enumerated among those earliest formed, and as mention is so frequently made in the Institutes of *sacrificial vases*, there can be no doubt of very fine porcelain having been anciently made in India; and that glass, both white and coloured, could not be unknown to a race so far advanced in chemistry as were the ancient Indians. Indeed glass is expressly mentioned in the Amarasinha, a book composed sixty years before the Christian æra, under the Sanscreeet name of SURYACANDA, that is, says M. Bartolomeo, “a bright transparent mass, through which the rays of the sun can penetrate.”* However, they do not seem, any more than other ancient nations, to have used it for windows; for, according to this author, they employ, for that purpose, *mother-of-pearl*, finely wrought and polished, and which is procured in abundance at the pearl-fisheries in the neighbourhood of Cape Comorin.

SCULPTURE.

Although the early progress of the Indians in *sculpture* has been already considered in

* Bartolomeo's Voyage, p. 391.

various parts of the preceding volumes, yet a retrospect of what has been advanced on so curious a subject, with a few additional structures, may not be displeasing to the reader, in this summary sketch of their arts and sciences. *Modelling in clay or plaster* must doubtless have long preceded any efforts in this branch of science. To attempts of this humble kind, in pottery and porcelain, succeeded colossal statues hewn from the solid rock, or cast in moulds from the various ores, as their knowledge of metallurgy increased. If a due proportion and symmetry are not always so accurately preserved as they ought to be, an excuse for the artist readily presents itself in the very nature of the strange grotesque symbolical objects designated, exhibiting, in one complex form, various species, and often different sexes; figures with numerous heads and arms loaded with emblematical devices, (the vagaries of mythology,) the tusks of the elephant, and the horns of the ox; sometimes environed with serpents, and at others hung round with strings of death-heads; which bid defiance to all the rules of regular science. Many of these mythological figures, however, in *Elephanta*, the oldest depository of idolatrous Indian images, are by no means contemptible in point of expression; and in particular that

terrific figure representing the evil principle, which displays aloft the emblems of the sanguinary worship paid to it, and is engraved in the sixth volume, affords no mean specimen of the progress in design of the Indian sculptor at the early date generally assigned to that cavern-temple and its singular decorations. Refinement in these arts, at that remote period, is necessarily out of the question; it was not elegance, but magnificence, that swayed the mind of the Indian artists. Their lofty conceptions of deity they conceived best represented by gigantic statues and massy symbols; and, by forming a mere bust of such stupendous dimensions as the principal figure there exhibits, [thirteen feet in height, the face five feet, and the breadth between the shoulders twenty feet,] the artful Brahmin completely effected the only purpose he had in view,—that of overawing the mind of the timid, ignorant, adoring Indian.

In truth, these mythological sculptures, these emblematical representations of avatars and colossal deities, with their respective attributes and symbols, carved in the living rock, in subterraneous solitudes, the first temples, in the infancy of mankind, were in some degree necessary to sustain and keep alive the ardour of the pious enthusiast. The supposed presence

of the gods, in these mystical images, diffused throughout the place an unspeakable awe and an inviolable sanctity; while the choral symphonies and ever-blazing fires elevated the enraptured soul even to those stars which were the proper abode of the sidereal deities adored by them. On the other hand, the representation of dæmons on those walls, in all the horrid forms, and with all the dreadful symbols, which fear or fancy could suggest, had an immediate tendency to over-awe the guilty mind, to expose the deformity of vice, and express the tortures of consequent remorse and despair; for, in their mythological pictures, as I have elsewhere expressed myself, with the symbolic figures of the mercy and goodness of God, were constantly blended those of his justice and his wrath. As the former were sculptured with smiling aspects, and were decorated with the ensigns of peace and protection, so were the latter portrayed with horrible distorted visages, and arrayed with every dreadful symbol that could alarm and terrify the beholder. These figures, converted into dæmons, under the notion of being the avenging ministers of omnipotent justice, were most to the purpose of the priest. He recited their number, he magnified their enormous power, and he awakened the agonizing terrors of his audience by impressing them

with ideas of their constant and immediate interference in human affairs.

Nor to mankind, in the improved and polished state of society, have these mythological sculptures proved without important use or sublime gratification. These rude, but majestic, remains of ancient sculpture admit us to a close view of remote antiquity. The allegorical designs which they exhibit obscurely unfold to us the history of the primitive ages; the profound arcana of their religion, the form and decoration of their temples; the dresses of the priests; and the subjects and instruments of sacrifice; they display to the eye of contemplation the first rudiments of thought, the first efforts of genius, the first dawn of the sciences. On the figured walls and embossed roofs we see the elements embodied; the passions personified; the august school, at once, of the deepest physics and the most instructive morality! The *sword* and the *bell* in the hands of one of the Elephanta figures, demonstrate that the Indians were even then METALLURGISTS; the jewels and pearls, with which the cars, necks, arms, and ankles, of many of the figures are loaded, prove that they had already explored the subterraneous regions for gems, and the bed of the ocean for its pearly treasures, and had accomplished the difficult pro-

cess of piercing precious stones ; while the ZENNAR, or sacred cord of three threads, on other figures, evinces that their cotton-manufactures were already commenced. These deductions must be allowed to be just, and are very important towards determining the antiquity of the arts and sciences in India ; but, at the same time, it must be owned they carry us back very near to the period of the deluge, and consequently demonstrate, I trust, the propriety of my constantly connecting, both in the present work and in the History, the antediluvian arts and sciences, by the channel of Noah and his family, with those of the earliest post-diluvian ages. Without that hypothesis, at once so rational and so consonant to the Scripture-history, which expressly mentions Tubal Cain as the first metallurgist, Cain as the first architect, Jubal as the first musician, &c. difficulties inexplicable would have arisen ; and, by asserting the pretensions of the Indians to such remote antiquity, these volumes would ultimately have tended to support the hypothesis of the sceptic. For this reason I eagerly embrace the Septuagint chronology, in the first place, because, by giving a greater age to the world, it allows a more extended period for the arts and sciences to have arrived at maturity ; and, secondly, because I am of opinion, that

the arguments brought by Vossius and Jackson unanswerably prove it to be the genuine chronology of the Hebrews. On this account, some zealous advocates for that chronology, as generally received, not sufficiently attentive to my views in doing this, have thought proper warmly to arraign that part of my book; but I had fully weighed the question, and on conviction adopted it as the system most reconcilable to reason and revelation. On this occasion, I must repeat that it is not for a few centuries more or less that we wage war with infidelity, but for the grand Christian code itself, which the enormously exaggerated chronologies of sceptical astronomers, could they establish their vagaries, tend utterly to annihilate.

To resume the consideration of the skill of the old Indian race in statuary, a very uncommon share of original merit (for, they certainly never condescended to be *copyists*) cannot be denied them. Without any claim to the merit of nice geometrical proportion or Grecian elegance, the figures of men and animals, engraved externally and internally on the pagodas of India, are by no means so destitute of the general outlines of the science as greatly to offend the eye, however the uncouth mythology, and the joining together of heterogeneous portions of human and brutal forms, may

insult the correct taste and matured judgment of the European spectator. If in elegance they are greatly inferior to the Grecian sculpture, they are at all events much superior to the mis-shapen statues of the Egyptian artists. Had not the Indian been chained down by the mythology of his country to a certain indispensable routine, both in design and execution, from which he dared not deviate, his progress towards maturity would have been more rapid; as, in Bartolomeo's judgment, the modern Indians want neither talents nor taste in either of those respects. The statuary, he informs us, " must make the statues of the gods exactly in the way and manner prescribed by the priests; in order, according to their opinion, that the attributes of the deity may be properly expressed. Hence it happens that the Indian statues have from four to six hands; three, and sometimes more, heads; and, in general, a very horrid appearance. The architect, however, has full scope for his genius, and is by no means subjected to the arbitrary prescriptions of the Brahmins. For this reason the Indian architecture exhibits more taste, and is much more perfect, than their works of sculpture: but I will not deny that the statuaries also make excellent pieces when they are allowed to follow the impulse of their own

genius ; as is proved by the many bass-reliefs, crucifixes, madonas, vases, and other articles of ivory, which are here and there executed by the Indian artists." P. 387.

The same apology is urged by this very sensible writer for the defects, of a similar kind that appear in their paintings. In either case their genius is equally cramped, and their progress in the fine arts alike retarded.

" In regard to the painting of the Indians, the case is the same as with their sculpture. This much is certain, that no one can follow the dictates of his own genius, and paint the gods as he pleases. Every innovation of this kind is considered as an act of impiety. The Brahmin prescribes the figure and form which a statue must have: under these, and no other, it must be painted ; and the least part of his care is whether these be consistent or not with the rules of art and of good taste. I have already observed, on different occasions, that the Indian mythology gives to each deity a certain surname and appellation, the object of which is to express their different qualities ; and a painter, when he sketches out a god, must represent these qualities also. Thus, for example, Seeva is called the god who bears the trident ; and for that reason he must be always represented with a trident in his hand. He is called, likewise, the

Conqueror of Death; and, on that account, must be delineated with a number of sabres, daggers, and skulls, lying around him, and with a man under his feet. He exhibits a horrid countenance; his mouth is distorted; his eyes seem to dart forth fire; and he has around his neck a cord on which a great number of skulls are strung. The case is the same with all the other deities, which must always be represented in such a manner as is agreeable to their character and attributes. From this it appears, that the painting of the Indians, like their sculpture, is in the closest connection with their theogony; and as the Brahmins alone have the right of explaining it, they assume the exclusive privilege of judging in regard to works of painting and statuary. As the painters are acquainted neither with the Sanscreeet language nor their mythology, it has been imposed on them as a duty to consult the Brahmins; and whoever transgresses this law is punished by expulsion from his cast. This is the true reason why painting and statuary have made so little progress in India." P. 388.

Thus according to this author, has the despotism of superstition opposed an everlasting barrier to the farther progress of the noble arts of sculpture and painting in India, and prevented the free operation of talents and exertion in a

nation naturally the most ingenious and lively of all the Asiatics; a nation too, it may be added, the individuals of which exhibit in their own persons, when in the full vigour of youth and health, the most perfect models of elegance and symmetry that ever employed the chissel or animated the pencil. The reflecting mind turns with horror from a prospect so shaded with invincible barbarism; and, with increased pleasure, contemplates those distant western regions which, though less beautiful and abundant, are yet blessed with the light of liberty, and exult in the enjoyment of a nobler theology!

Since the appearance of the third volume of this work, which contained my Dissertation on the

ARCHITECTURE

of the primitive race of Indians, the ingenious Mr. Daniell has published his Designs of Indian Buildings, and, the more attentively any person considers them, the more clearly he will perceive that the Indian architecture is not, as has been idly argued, copied from either Egyptian or Persian models; but that it is genuine *Hindoo*, and, in general, the result of their own mythological conceptions. This gentle-

man, who, with indefatigable zeal in search of the architectural antiquities of India, has ascended the snowy precipices of the Sewalic mountains, and dared the tropical fervours that descend direct on the vast temple at Ramankoil on the most southern point of the Peninsula, has presented the public with a greater variety of specimens, in this line, than any preceding artist, and they will nearly all serve as a forcible comment upon what has been previously urged in the Dissertation before alluded to, in respect to the origin and progress of Oriental architecture; since, in these retrospective surveys, the *pyramid*, the *cone*, and the *oval*, perpetually recur in perfect unison with their mythological superstitions respecting the beam of the sun, the cave of Surya, or Mithra, the chaotic egg, &c. &c. There is no occasion for our retracing, in this place, ground already so amply trod over; but I cannot omit acknowledging, in this place, either my own numerous obligations to this distinguished artist, or expressing my sentiments how greatly Indian literature is indebted to his illustrative pencil.

In fact, the highest idea with which the most esteemed printed accounts had impressed my mind, added to the correct verbal relations of intelligent travellers, who have, within a few late years, visited the excavated temples

of India, and the pagodas that every where erect their majestic summits in the provinces subject to, or connected with, the British government, fell very far short, indeed, of what the magnificent sketches of Mr. Daniell must suggest to every man who attentively surveys and considers them. In general, we have been accustomed to read the Mahommedan accounts of those temples, which the desolating fury of their own barbarism has defaced in the fertile and populous districts conquered by them, and the sacred edifices of Benares, of Sumnaut, and of Seringham, excite in us the most profound astonishment. On these we gaze in the historic page with awe-struck wonder, and regard their recorded dimensions as almost incredible. It is not, however, in regions subjugated to the Mahommedan yoke, or under the jurisdiction of any foreign power, that we ought to expect to discover the most august remains of sacred architecture in India; the yet unexplored regions of the extreme southern Peninsula, to which the Islamite conquerors *did not* penetrate, buried in immense forests or embosomed in mountains of granite, contain edifices of surprising magnitude executed in the boldest style of Indian architecture; while many of the sculptures that cover them, from the summit to the base, are wrought with uncommon spirit and

elegance. Among animals thus sculptured, the bull, the lion, the elephant, and the Cobra serpent, continually occur, being the principal symbols in their mythology ; the three last, as objects which they are accustomed frequently to survey, are generally well represented ; but, it must be owned, the lion, being, in modern times, at least, a stranger in this region of Asia, is, in general, very inaccurately desinged. In truth, wheresoever this symbolical figure, rudely delineated as it uniformly is, occurs, we may, in general, rest assured, from this very circumstance, that the sculpture is of high antiquity.

The pagoda of Ramasseram, before alluded to, on the island of Ramankoil, dedicated to the great God Mahadeva, deserves particularly to be noticed as one of those that awe the mind by the grandeur of its elevation ; and this stupendous, but secluded, temple may probably lay claim to a date in antiquity superior to most others in India ; even the distant date of Rama's expedition, into these regions, to recover his beloved SITA from the hundred fangs of the gigantic RAVAN, king of Ceylone. It stands close to the shore, and has felt the shock of the depredating wave, which has, for immemorial ages, been encroaching upon it. Amidst the inaccessible woods, also, that clothe the descent of the Gauts, astonishing remains of

ancient buildings are to be found, consisting of very lofty columns of excellent proportion; and erections, to some of which the romantic artists of India have given the most grotesque forms imagination can conceive. Among Mr. Daniell's specimens are also immense pyramidal masses of solid stone formed like those pyramids above Giza, where the bold projecting rock has received that figure from the incessant labour of the chissel. These, like the excavations that line the shore of the Nile, exhibit another striking instance of similitude in the architecture of the two nations; while the Canis Anubis and the Vara avatar, or Veeshnu with the boar's head, shew their parallel conceptions in sculptured imagery. For this astonishing display of so many of the prodigies of ancient India, accomplished at great personal risk and hazard, every lover of Indian science will feel the warmest gratitude to Mr. Daniell; accompanied with a sincere wish that the laudable example which he has set may be followed by other professional gentlemen in India, where a vast field for exertion is still open, and the reward will, doubtless, be proportioned to the labour.

One reflection naturally and forcibly intrudes itself on the mind, while considering these amazing fabrics; and that is, the impossibility

of teir having been erected except in those remote periods when the great Indian empire was yet unbroken by the incursion of foreigners ; when one supreme sovereign MAHA-RAJAH swayed the righteous sceptre of that happy country, by noble rewards encouraging genius, patronized the rising arts, and, with a powerful hand, protected the efforts of the perservering architect. At the period of Alexander's invasion we have seen that the Indians were no longer firmly united under one puissant sovereign, no longer fought under one victorious banner ; the divisions among the rajahs had long commenced, and their contempt, or at least, neglect, of the supreme head of their order, had encouraged the warlike barbarians, of every neighbouring country, to pour their armies into that debilitated country, and among that divided people. To suppose undertakings, thus vast in design and arduous of execution, could possibly be finished, or even projected, amidst the turbulence and distraction of war, would argue absurdity in the extreme. They are consequently to be contemplated as equally august and decisive monuments of the grandeur of the ancient Indian empire when flourishing under its native dynasties of princes, in meridian splendour.

ENGRAVING ON GEMS AND SEALS.

We are now, in the last place, to enter upon a subject equally curious and abstruse; an art, the high antiquity of which, at least in India, has been very much disputed, though no fact can be more clearly ascertained than its having early flourished in that region of Asia. Under a former head we have seen how early the Indians had attained the arts of design, sculpture, and metallurgy; in what remote periods they carved on wood and stone the images and avatars of the gods, and the animals and objects deemed sacred by them, the goose of Brahma, the bull of Seeva, the garuri, or eagle, of Veeshnu, the elephant-head of Ganesa, the serpent, the lotos, and other symbols with which all the caverns abound. We have heard Mr. Hallhed's judgment "with respect to the ancient coins of Nepaul and Cashmere, and the seals of Bootan and Thibet," impressed or engraved with the oldest Sanscreeet characters and mythology. In the Institutes also, regulating our decision by the ascertained "age of that book, we have seen how very early they had learned the difficult process of

enchasing in gold, and of piercing fine gems, diamonds, and rubies" but we perhaps have not taken sufficient notice of the Sanscreeet alphabetical writing conspicuously cut in the Elephanta cavern, and on the breast of the principal figure in the grand triple bust; for that is, in fact, ENGRAVING, and exhibits, at once, a suprising proof of the antiquity of the art and of the alphabet.

The hieroglyphics, engraved on the granite of Egypt, are the only ancient specimens of this art that can at all vie in antiquity with those of India; at that period, to have possessed instruments proper to cut them on that granite so deeply and durably, argues, in the Egyptians, no small advance in chemical science; and, in truth, as few of the inferior classes of precious stones are of a much harder substance than Egyptian granite, their being able to operate upon it may well be deemed to imply such an acquaintance with the use of those important machines in this science, the *wheel* and the *drill*, as would enable them to engrave on the more valuable gems. There is no occasion, however, on this subject, to have recourse to *conjecture*; the evidence of Scripture, in favour of Egyptian genius, is clear and express; for Pharoah, in exalting Joseph to the elevated

rank which he enjoyed in his court, is said to have given him his *ring* or *signet*,* which necessarily implies an engraving. This event took place in the 18th century before Christ, and, much about the same period, Judah is said to have given his *signet* and his *ring* in pledge to Tamar.† Afterwards we find the Jewish artists engraving, on the substance of the hardest and most valuable stones, the names and symbols of the twelve tribes of Israel, intended to adorn the ephod and breast-plate of the Jewish high-priest; the assortment of those stones was equally superb and beautiful, for Moses is thus commanded :

And thou shalt set it in settings of stones, even four rows of stones : the first row shall be sardius, a topaz, and a carbuncle ; this shall be the first row.

And the second row shall be an emerald, a sapphire, and a diamond.

And the third row, a ligure, an agate, and an amethyst.

And the fourth row, a beryl, and an onyx, and a jasper : they shall be set in gold in their enclosings.‡

But what is more important to our purpose,

* Genesis, xli. 42. † Genesis, xxxviii. 18.

‡ Exodus, xxviii. 17, 18, 19, 20.

Moses is also commanded to *take two onyx-stones ; and GRAVE ON THEM THE NAMES of the children of Israel :*

Six of their names on one stone, and the other six names of the rest on the other stone, according to their birth.

*With the WORK OF AN ENGRAVER IN STONE, LIKE THE ENGRAVINGS OF A SIGNET, shalt thou engrave the two stones with the names of the Children of Israel : thou shalt make them to be set in ouches of gold.**

Thus much was proper to be said in justice to the claims of Egypt to very high and ancient proficiency in the lapidary's and engraver's art ; but the claims of India ascend far higher ; and the learned naturalist, Mr. Raspe, has laboured with very great success to establish them. He has very judiciously observed that India, besides the ingenuity and mechanic turn of her sons, has *natural claims* to the invention of this art which Egypt never possessed. By *natural claims*, he means to say, that Nature has abundantly done that for India which she never did for Egypt ; and, " from times immemorial, has produced from the inexhausted mines of her peninsula and islands, her quarries, and rivers, all the very best sorts of precious, fine, and hard stones which lapidaries

* Exodus, xxviii. 9, 10, 11.

and engravers work upon ; together with every substance and material which sharpen their tools and conquer their otherwise invincible hardness :—the real Oriental diamond, at once the object and tool of the lapidary and engraver, the ruby-sapphire, emerald, topaz, chrysolite, the sardonyx, chalcedon, onyx, cornelian, jasper,—as also a particular sort of diamond-spar which cuts diamonds incomparably better than the best emery.”* Egypt, he adds, had only jaspers, porphyries, and some other hard siliceous stones, of its own production ; its famous emerald mines, in the Thebaic desert, are either lost or exhausted ; or, according to his own and Mr. Dutens’ opinion, never produced the *real emerald* ; and he affirms they never had the real diamond, nor even the diamond-spar, without which the engraver could not operate.

This statement, from so high an authority as Mr. Raspse, is very forcible, and I think the arguments used are decisive, especially when the specimens of ancient Indian engraving on gems, which are exhibited in Mr. Tassie’s valuable collection, are at the same time attentively considered. The first of these is a beautiful EMERALD belonging to Mr. Wilkins, and bearing the Indian SING, or lion, with a

* Raspse’s Introduction to Tassie’s engraved Gems, vol. i. p. 14.

Sanscreeet inscription which marks it for an antique, though it is impossible to say of what date. He speaks of the style of the engraving as bold and impressive, and equal to the best works of the old Egyptian school. The second is of LAPIS LAZULI, in the possession of Mr. Townley, representing a man and woman sitting on a kind of throne, and habited in the manner and style of the ancient bas-reliefs discovered at Salsette and Elephanta. A third is on SULPHUR: and a fourth of ORIENTAL GARNET exhibiting figures dressed nearly similar. He has also published some zodiac figures of presumed Indian fabrication; but they are very doubtful.

Mr Guise, late surgeon of the hospital at Surat, has also, with indefatigable zeal, collected, and recently imported into his native country, some very curious specimens of engraved seals and rings, undoubtedly Hindoo, from the symbols and characters which they exhibit. One of them, the lion, or SING, on a cornelian, rudely enough designed, but deeply cut in the stone with a lotos rising from his back; another, on lapis lazuli, of a peacock, with its tail expanded, the mythologic bird on which Carticeya rides, the Indian Mars, who leads along the radiant host of heaven, designated by its spangled plumage; and several like those of Mr. Townley, habited and throned after the manner of the Elephanta

figures, are deserving of very minute attention from the antiquary. They were dug out of the earth in the neighbourhood of Surat, and, doubtless, many more that earth conceals, which time and future research, similar to the laudable and zealous inquiry of Mr. Guise, will not fail to recover from its obscuring bosom.

M. Bartolomeo also entirely agrees with the above accounts of the skill of the old Indians in engraving seals and rings, and mentions two or three very valuable specimens which he had seen in India.

“ The Indians,” he observes, “ are accustomed to examine the water of diamonds always at night by the light of a lamp. In Europe, diamonds are separated by sawing them; but the Indians split them, or cut them down to the proper size, — a labour in which they are much more expert than the Europeans. Some years ago, the Great Mogul had a diamond which weighed $279\frac{1}{2}$ carats. It was valued at two millions five hundred thousand rix-dollars. This diamond, therefore, exceeds in value any hitherto known; for the large diamond of the Grand Duke of Tuscany weighs only 139, the Sanci 106, and the famous Pitt diamond 136 carats three grains.

“ The artists of Ceylon prepare rings and heads for canes, which contain a complete

assortment of all the precious stones found in that island. These assemblages are called *Jargons de Ceilan*, and are so named because they consist of a collection of gems which reflect various colours, such as the red ruby, the sky-blue sapphire, the golden yellow topaz, called by the ancients chrysolite, the green emerald, which I found myself in Ceylon, though some assert that it is not a production of that island;* also the amethyst, beryl, opal, and garnet. All these stones may be procured at Colombo in the island of Ceylon, at Cochin and Calicut in Malabar, and at Madras on the coast of Coromandel.

“ The Oriental diamonds are octagonal and sharp-pointed. This form, their colour, water, and lustre, with the liveliness of their irradiation, are the essential characteristics by which they may be distinguished from the Brazilian diamonds. The different kinds of agate, cornelians, chalcedonies, swallow-stones, opals, onyxes, and cats eyes, which, according to the

* “ Dutens, in his book *Des Pierres précieuses et des Pierres fines*, p. 38, says, speaking of the emerald, that it is exclusively found in America, near *Manta*, in Peru, or the valley of *Tunka*, in the mountains of New Granada and Popayan, and was not known to the ancients. The author of this voyage asserts that he found emeralds in Ceylon, and I myself have obtained some of them from that island.”

—FORSTER.

system of Wallerius, belong to the *silex genus*, are not much esteemed on the coast of Malabar, though some of them are brought thither from Arabia, Persia, and the northern part of India.

“ On a seal ring of the king of Travancor, which consists of a very hard and valuable stone, the following words are inscribed : *Sbri Padmanābhen*. This is one of the sacred names given to *Veesnu*, and contains an allusion to the birth of that deity. *Sbri* signifies sacred, *Padma* denotes the *nymphæa*, and *Nabhen* one who sits in the interior part of this flower. The reader will recollect, from what has been before said, that the *nymphæa* is a symbol of water, and of every thing created from it. The above words serve as a convincing proof that the Indians are certainly acquainted with the art of cutting upon stone. A like ring was in the possession of the king of Ceylon, *Vimala Dherma Suryada*, who embraced the Christian religion, and at baptism got the name of Don John of Austria. On this ring the god *Budha* was represented under the human form.” P. 392 to 395.

The Ayeen Akbery has a chapter on the Indian mode of setting in gold the infinite variety of precious stones with which their country abounds, and on their curious gold fillagree work, in which they are there said to

be “exquisite artists;” as well as to charge a very high price for their operations in this branch of the profession, and Mr. Bartolomeo, in this instance, as well as the former, bears decisive testimony to their scientific skill. Indeed, when it is considered that, in India, the son never deviates from the occupation which his father pursued, through a long succession of generations, there is no wonder that the inhabitants should carry the mechanical arts to the utmost degree of attainable perfection, by a race equally ignorant and disdainful of European attainments.

To conclude; in whatever light we contemplate this wonderful people, whether as artists and mechanics, or as scholars and philosophers, we are lost in mingled admiration and astonishment; and, while we lament many of their local prejudices and blind superstitions, we cannot avoid feeling a just indignation against those successive oppressors that, in every age, have devastated their beautiful country, and finally subverted their ancient and happy government.

* Ayeeen Akbery, vol. iii. p. 264.

A
DISSERTATION
ON
THE ANCIENT GOVERNMENT
AND
JURISPRUDENCE
OF
INDIA.

A

DISSERTATION, &c.

CHAPTER I.

Ancient classical Writers very defective in Information, respecting the INTERNAL POLICY of the Indians.—Accounted for in the Reluctance of the Indians to admit Visits from Foreigners, and in the Injunction of Menu to themselves not to pass the ATTOCK.—Their Relations, however, not wholly to be rejected.—The Government MONARCHICAL, but not despotic, and founded on the Principles of the PATRIARCHAL.—The unlimited Power of the Brabmins, immediately derived from a divine Source, in the Control of the regal Authority, and in the arbitrary Interpretation of the Laws, rendered it a Kind of THEOCRACY.—Hereditary Counsellors of the Crown, in Peace and War; all the higher Functions of effective Government, though nominally and by Law intrusted to the KHETTRI, or RAJAH, Tribe, ultimately depended on themselves.—Wisdom of the original

Division of the Hindoos into FOUR CASTS.—Their DUTIES, RIGHTS, and IMMUNITIES, respectively considered.—The Police established throughout the Indian Empire extremely vigilant and rigid.—The Duties of its Officers.—That Police sanctioned by a CODE which held out REWARDS as flattering as the PUNISHMENTS it denounced were terrible and sanguinary.

ON the subject of the original Form of government established in India, little solid information can be expected from the *classic* page of antiquity, because a perfect knowledge of the mode in which the government of a country is conducted necessarily implies an intimate acquaintance with its history. But, concerning that history, through the whole volume of antiquity, there are scattered only the faintest glimmerings of intelligence; and this universal and continued ignorance of the ancients, in regard to the domestic history of India, is easily to be accounted for in the peculiar manners of this secluded people, who seem neither to have been anxious to visit other nations nor to receive visits from them.

In truth, forbidden, under the severest penalties the legislature could inflict, to wander beyond the limits of the country which gave

them birth ; attached to that country as well by its fertility and beauty as by the necessity which there existed of his daily performing a multitude of sacred rites and ceremonious ablutions prescribed by his religion, and possibly ordained for that very purpose by the wise policy of Menu ; fixed by the decree of the same legislator to a rank and class among his fellow-creatures, from which those immutable decrees allowed no possible deviation ; the ancient Indian could possess little curiosity to be gratified in regard to foreign kingdoms, of whose existence, indeed, in any extent or number, his secluded situation would naturally render him in a great degree ignorant. He professed also a religion so directly opposite, in its leading principles, to those of that furious Mahommedan superstition which afterwards deluged with blood his unhappy country, that it neither sought nor admitted of proselytes ; and, while he conscientiously obeyed the mandates of a system of jurisprudence, which prohibited any immediate intercourse with the individuals of all the various tribes, except his own, that inhabited his native region, he could not fail of scrupulously abstaining from the defilement inevitably consequent on an intercourse, still more strictly interdicted, with foreigners. The Artock, the most western river

of the Panjab, the very name of which implies *forbidden*, was appointed by Menu to be the eternal barrier between them and alien nations, and to pass it was to incur at once the chastisement of man and the curse of God.

On the other hand, deterred by their natural reluctance to admit strangers within their cities, few travellers in ancient times penetrated far into India, and fewer still into the mystic theology and abstruse lore of the Brahmins. The visits to that country of Zaratusht and Pythagoras, for the noble purpose of investigating the principles of their philosophy, are among the few recorded in history. In respect to their commerce with the Egyptians and Arabians, that branch of it was carried on principally along the coasts of the Peninsula; and Lahore and Cabul seem to have been the utmost limits of the migration of those merchants of Upper India, who traded to Persia and Tartary. Hence it arose that such astonishing fables were circulated in the ancient world concerning this little explored country, where every thing vast and prodigious was supposed to generate and abound; of all which the credulous Pliny has been the diligent collector and the too faithful narrator.

The Indian sovereigns also, contemplated as they were by their subjects, as the vicegerents

of God on earth, with a reverential awe little short of idolatry, possessing treasures beyond calculation, and power without limit, in their hereditary domain, felt no sting of avarice, no ardour of ambition, to goad *them* to the conquest of surrounding nations whom they considered as *Mileeches*, infidels, outcasts of God, and occupying a station in the scale of humanity far inferior to themselves and the favoured tribe of the great Brahma. Over such vassals, they would have thought it inglorious to have reigned; happy would it have been for the Hindoos, in after-ages, had the Persian and Tartar sovereigns, their neighbours on the west and north, been of the same opinion with themselves!

Not absolutely relying on what classical writers have written concerning India, yet, in the course of our retrospect, not wholly regardless of their exaggerated narrations, let us consult the more accurate accounts which British diligence and zeal, in India, have recently procured for us of that country in its earliest periods, either from books or living authorities of the highest rank; let us inquire what actually *was* that government so celebrated for its wisdom and equity, and in what manner it was conducted to render it at once so lasting and so respectable.

It certainly was, in the strictest sense, *monarchical*, but with very just and severe checks to guard against the possible abuse of the powers intrusted to the ruling sovereign. The Indian monarchy, as originally established, at the same time exhibits to us in a more marked manner than most other countries of Asia glaring vestiges of the original *patriarchal* mode of government, founded on the model of the *paternal*, in which the chief of each family exercised the sovereign jurisdiction over the individuals of it, even to the infliction of death, when merited; continuing to flourish unviolated for a long succession of ages. With the regal, in him were combined the sacerdotal dignity, and a kind of prophetic sanctity of character, supposed to have descended to him from that venerable personage who was the grand fountain of all post-diluvian honours; the KING, PRIEST, and PROPHET, of the regenerated world! A band of holy Brahmins, who, like the Magi of Persia, were the hereditary counsellors of the Indian crown, constantly attended in the palace, and around the sacred person of the prince, to give him their advice in the most important concerns of his empire, to inculcate upon him the duty of a just and wise sovereign, at stated periods to chaunt the solemn hymns of devotion, to assist at the frequently returning

rites of sacrifice, and explain the omens of the blazing altar.

Though the functions of government, by the laws of Menu, devolved on the Khettri or Rajah tribe; yet it is certain, that, in every age of the Indian empire, aspiring Brahmins have usurped and swayed the imperial sceptre. A whole nation of Brahmins was found by Alexander in the western districts of India, on whom, for their obstinate opposition, that conqueror exercised the greatest severity, and even crucified their king. But, in fact, there was little necessity for the Brahmin to grasp at empire: he ruled both the empire and the monarch: he was greater out of the purple than in it. Without the immediate sanction of that tribe, in no event of national consequence did the sovereign dare to embark, either in the season of profound peace, or amidst the turbulence of the embattled field. He was invested with equal power in the palace and in the camp. He elevated alternately the olive of peace, or wielded the thunderbolt of war. Strabo positively asserts,* and his assertion is confirmed by the results of modern inquiry, that the code of Brahmin law was not originally *committed to writing*; in fact, the very name of that code, which is *MENUMSRITI*, or *institutes remembered from Menu*, proves this representation to be just. Till the

* Strabonis Geograph. p. 716.

age of Vyasa they were deposited solely in the memory of the Brahmins; and to them the prince applied in all matters of difficulty. On occasions of extreme national urgency he visited them in the dead of the night, and their answers were given in all that gloomy pomp and profound solemnity attendant on the midnight hour. By an overstrained conception of the high sanctity of the priestly character, artfully encouraged for political purposes by the priest himself, and certainly not justified by any precept given by Noah to his posterity, the Brahmin stood in the place of the Deity to the infatuated sons of Indian superstition; the will of heaven was thought to be uttered from his lips, and his decision was revered as the irrevocable fiat of destiny. Thus, boasting the positive interposition of the Deity in the fabrication of its singular institutions, guarded from infraction by the terror of exciting the divine wrath, and directed principally by the sacred tribe, the Indian government as originally formed may be justly considered in the light of a THEOCRACY; a theocracy the more terrible, because the name of God, by this perversion, was made use of to sanction and support the most dreadful species of despotism; a despotism which, not content with subjugating the body, tyrannized over the prostrate faculties of the enslaved mind.

We are informed by Strabo, that the great body of the Indian nation was divided into *seven* distinct classes, but we know, from more authentic sources, that this division was only four-fold, that is to say, into the classes sacerdotal and regal; the tribe agricultural and mercantile; and that of artificers, mechanics, and servants. These, however, are again subdivided into an infinite variety of inferior casts, and in these, by the arbitrary mandate of their great legislator, they are bound to remain without hope of removal or possibility of exaltation. The apparent impolicy of this division has been often descanted upon, and justly anathematized as a barbarous attempt to chain down the powers of the human soul, to check the ardour of emulation, and damp the fire of genius. On that ground, it certainly deserves the severest reprobation; yet, by this arrangement, it should be remembered, the happiness and security of a vast empire was preserved inviolate during a long series of ages under their early sovereigns; by curbing the fiery spirits of ambitious individuals, intestine feuds were in a great measure prevented, the wants of an immense population were amply provided for by the industry of the labouring classes, and the several branches of trade and manufacture were carried to the utmost degree of attainable

perfection. Though the stern ferocity of Mahomedan despotism hath insulted their religion and overturned their government, yet they have not been able to rend from them the superior palm of excellence to which the curious productions of the Indian loom are so highly entitled; and the exquisite work in gold and jewellery, that passes through the pliant fingers of the Indian artist, remains still unrivalled in any commercial region of the earth.

The wide diffusion of the Sanscreet sciences, language, and mythology, over the whole eastern quarter of Asia, appears fully to justify the Brahmin assertions that the empire, in very remote periods, extended from the mouth of the Indus, west, to the Sea of China, east; and from the Thibetian mountains, north, to Cape Comorin in the south. These are the vast lines of demarkation which Sir William Jones, from the Brahmin records, sometimes assigns to the ancient empire of India; and, if Mr. Halhed's assertion be correct, "that he found the Sanscreet characters, and emblems allusive to the Sanscreet mythology, so universally engraved on the coins of Assam, Nepaul, and Cashmere, as well as on those of Bootan and Thibet,"* their claims to that wide domain

* Halhed's Preface to his Bengal Grammar, p. 3.

seem to be indubitably established; and it should not be forgotten that the very same books record the migration, near four thousand years ago, of the heretic Chinese from the bosom of the mother-country, towards the regions lying nearer the rising sun.*

This mighty empire was governed, according to their own annals, by one supreme monarch, the Maha Rajah, or Great Rajah, to whose sovereign control through its whole extent a numerous class of subordinate rajahs was obedient, and wisely to govern such an immense territory, it will readily be granted, required the full exertion of all the sacerdotal, regal, and prophetic functions with which this superstitious people have invested their first venerated sovereigns, after the flood of Satyaurata Menu. These princes, therefore, formed a chain of feudatories, governing vast kingdoms, governed, in their respective districts, by the same laws that bound the sovereign, and equally restrained by the presence and power of the Brahmins from abusing the office of chief magistrate delegated to them by the supreme Brahma and the sacred tribe, who, in the order of creation, sprang from his head, like Minerva from the head of Jove.

Nothing could have prevented the ancient

* Sir Wm. Jones's Essay on the Chinese Nation.

Indian kings, exalted and revered as they were by their subjects, from becoming despotic tyrants, but this salutary restraint upon their power, added to the powerful ARISTOCRACY which the inferior, but valiant, nobility of their own tribe composed. The Brahmin might be faithless to the trust reposed in him by his god; but the inferior rajah disdained illegal and dishonourable submission: he well knew, and, at the hazard of being and fortune, would assert, the rights of his cast. The truth is, that, whatever arguments may be urged against an overgrown aristocracy in a highly monarchical government, they constitute still the great barrier against the exorbitant power and usurpation of the crown itself. Were the natural jealousy, the consanguinity, the combined influence of a high-minded nobility, in a government, destroyed; the liberty, or rather the remains of liberty, in that state would be quickly annihilated, and complete despotism establish itself upon its ruins.

By his high office, the Marajah had the sole power of directing the national vengeance against the common foe, and of summoning all the inferior rajahs to the field, at the head of the quota of troops which every separate province was compelled, by stipulation, to furnish. The imperial army of India, therefore, when

assembled together, must have consisted of an immense body of horse, foot, and elephants; and we ought not to consider as so highly exaggerated, the account given in classical writers, that Sandrocottus, or, in Sanscreeet, *Chandragupta*, who had usurped the throne of the ancient Marajahs on the Ganges, had raised an army, to oppose the Greeks in that quarter, of 600,000 men. This number is in perfect unison with the immense extent, power, and population, of India, at that period, and greater armies have been since brought into the field of Indian war. Strabo, indeed, from Megasthenes, informs us,* that, in his time, the great Indian empire consisted of one hundred and eighteen nations, each of which was governed by its own peculiar prince; a descendant of Porus afterwards wrote to Cæsar, then at Antioch, soliciting his alliance, and boasting, that he, at that time, reigned over 600 tributary princes, but most of these could only have been governors of cities, or chiefs of small cantons, dependent on his power. The regal honours in their families, as in the chiefs, were hereditary; they had the power of life and death, but were compelled, by tremendous obligations and the forfeiture of cast, to regulate their decisions by the grand legislative code of Menu.

* Strabonis Geograph. p. 719.

An assembly of the Brahmins, sitting in judgment on a vicious or tyrannical king, may condemn him to death, and the sentence is recorded to have been executed; but no crime affects the life of the Brahmin; he may suffer temporary degradation from his cast, but his blood must never stream on the sword of justice; he is a portion of the Deity; he is inviolable, he is invulnerable, he is immortal!

So profound, so inextinguishable, was the respect, with the dawn of life, inculcated, and, through every period of it, paid, both by prince and subject, to that code; so perfectly did every member of the four classes know and, from dread of the horrible punishment denounced against the breach or omission of them, perform the duties incumbent on his peculiar station; that, while piety and fortitude reigned at the helm, while the Maha Rajah himself continued faithful to the awful trust reposed in him, while the Brahmins remained vigilant and uncorrupted, the utmost tranquillity could not fail of pervading every quarter of the empire. Strabo, with his usual correctness, informs us, that the Indian sovereigns were obliged to shew themselves publicly to the people once a day, to hear petitions, to redress grievances, to determine differences arising among their subjects; nor could they rise from the tribunal till

all were heard, and every claim adjusted: the descendants of Timur religiously adhered to this Indian rule. In all negotiations, the public faith when once plighted in any treaty was inviolably preserved. The figure of an anchor, the sacred symbol of truth and stability, was engraved upon the grand imperial signet, used upon those solemn occasions.*

While the main spring of this vast political machine performed its functions with undeviating regularity, all the inferior movements were in perfect unison with it; but, when the repeated invasion of Tartar and Persian warriors had at length shaken to its centre their ancient throne, and weakened their enormous power, a general relaxation, both in discipline and morals, took place in all the subordinate branches of the monarchy. The inferior rajahs renounced their accustomed obedience to their chief; and, aspiring to independence, in their respective districts, forgot equally the laws of Menu, and reverence for the Brahmin who ought to have enforced it; and the well-poised empire of Hindostan tottered to its foundations. Internal divisions added to the convulsion of the empire from foreign assaults, and the hostile rajahs endeavoured in the field, to which they

* Philostratus, lib. iii. cap. 11.

had been trained, to wrest from each other the provinces which their treachery had usurped.

The Indian nations seem to have continued in that happy and envied state, before described, from the foundation of their empire, under Rama, till within about 700 years of the Christian æra, when the first Tartar and Persian invasions commenced, and were at first vigorously resisted; but India and the uncounted treasures of its peaceable monarchs, accumulated during a series of centuries, afforded too strong a temptation to those valiant marauders to be relinquished after only one or two repulses; the attack was therefore renewed by both with numbers vastly increased and with tenfold vigour, and the Maha Rajah, if not wholly conquered, was subjected at least to tributary dependence: thus they continued to the time of Alexander's invasion. The great bond of union, by which so vast an empire had been holden together, was already broken; and, both in its eastern and western quarters, the inferior rajahs had usurped authority and privileges unknown to the principles and original constitution of the monarchy. The situation of things, however, at the period of the Greek irruption, fully verifies the preceding representation both of the affairs of India and the characters and

pretensions of the rajahs. It demonstrates that the great feudatory princes of India, though they retained their martial spirit and their usurped dominions, no longer obeyed the summons of the Marajah as their supreme chieftain to the embattled field; no longer elevated those united banners against the foreign invaders of their country which, in ancient periods, formed around his throne an impregnable bulwark. Their conduct to their chief was perfidious; and, that they no longer cherished that harmony, even among one another, which might render them formidable to the common foe, is evident from the motives which Strabo assigns for the junction of Taxiles, whose dominions spread for a great extent along both the shores of the Indus, with Alexander. The reason alledged for the ready assistance which he afforded Hæphæstion, in preparing the bridge of boats on which he passed that river, was the rooted enmity he bore to Porus, his rival, whose dominions lay on the east of the Hydaspes, and the noblest species of glory which that conqueror obtained in India was his uniting those rival chiefs in bonds of lasting friendship.

Of the nations at that period inhabiting the western region of India, and of the rajahs that governed them, we have just ground to entertain the most elevated and honourable notions,

since they fought with the most undaunted firmness against the veteran troops of Alexander,—against troops that were the flower of the armies of Greece, conversant, from long and severe experience, in all the various movements and all the intricate business of war, as well as furnished with every dreadful and effective engine for carrying it on with vigour and success. Yet, neither the terror of the new arms which assailed them, nor the intrepidity of a new enemy whom they opposed, could damp the ardour of their fortitude. In the desperate siege, the novel and terrific appearance of the immense battering machines prevented not the invested garrison from making the most spirited efforts against their invaders; and it was with hardly any remains of life that adventurous invader himself was borne on his shield from a principal city of the Oxydracæ, whose name, by concealing it, it would seem as if they were afraid of immortalizing. Every new river which he crossed, every new province which he attempted to subjugate, his hardy Indian adversaries still disputed, with a fortitude that shrunk from no danger, with an ardour which no fatigue could abate, and with a perseverance that must have been crowned with success against an enemy not deemed invincible. Again and again driven from the field, they still continued

to rally their dispersed forces; and although the Oxydracæ were defeated at Sangala, they renewed the engagement near the shore of the Indus. It may be urged that the veracity of the Greek historians stands upon a suspicious foundation, and that they who could degrade themselves so far as to compliment Alexander with the honours of divinity would not scruple at a falsehood to enhance his celebrity; but would naturally be led to magnify his enemies, with intent to increase the glory which victory, under such circumstances, must infallibly bring along with it. The Khettri, or war-tribes of India, however, have not less in modern than in ancient periods indubitably established their right to the distinguished character of heroic fortitude. The Mahrattas, one of those tribes in particular, may contest the palm of undaunted valour with the finest and best disciplined troops of Asia, and bid fair, at some future auspicious period, effectually to liberate their country from the galling yoke of their Mahommedan tyrants.

Having taken the above general survey of the duties and functions assigned to the first and second classes of the Hindoos, it would be unpardonable to omit mentioning the guardian, the paternal attention, extended by the ancient legislature of India to the two inferior

casts; who, while they contributed so materially by their industrious exertions as merchants, husbandmen, mechanics, and in the still humbler servile capacity, to the support, the comfort, and even the luxury, of the superior orders, had a right to expect, and fully enjoyed, the protection and fostering care of the government under which they toiled. It must here be noticed, that the sovereign of India has been immemorially considered as the sole proprietor of the soil;* and, under ancient grants from the crown, the great Zemindars hold their lands on the easy terms of paying a sixth part of the annual produce to that sovereign for his support and the subsistence of the national armies. Ancient writers say, that a fourth was the sum stipulated between the sovereign and the renter of the land; but I have elsewhere produced a passage to prove that it was only a sixth, which is a still more lenient deduction from his profits. It might be called a perpetual lease; for, the punctual payment of that sixth ever secured the possession of the farm to the family who rented it; and, in the ancient æras of the empire, it descended from father to son in the third cast by a kind of hereditary right.

* In the code of Hindoo Laws, the king is declared, "lord paramount of the soil," p. 194. Calcutta, quarto edit.

To so important a member of the community as the cultivator of the ground, in a country where the inhabitants subsist principally on vegetable productions, it was but consistent with the highest policy to render his situation comfortable and his property inviolably secure from invasion. This is done in a most ample manner, by a series of wise and humane laws, in the chapter of the code that concerns the third class ; and which we shall presently more particularly notice. By those laws, he was for ever exempt from all the burthen of public service military and civil ; he saw, but felt not, the tempest of battle which raged around him ; hostile squadrons in the ardour of pursuit and victory respected the property and the person of the husbandman. In the ancient periods of the empire, Strabo tells us, it often occurred, that, while in one field the flames of war spread havoc and destruction, in that adjoining, the unmolested husbandman was beheld in security tilling the ground, and providing by his industry against its disastrous ravages.* There was, indeed, one apparent burden under which the husbandman laboured ; but his devotion to the religion of his fathers forbade him to esteem it as such. The king had his *sixth* by law allotted to him ; but *all*, if he were

* Strabonis Geograph. p. 704.

disposed to take it, was the Brahmin's. Among the fruits and grain of the earth he selected the choicest for his own use and the service of the temple. It was a sacred claim beyond the arbitration of man; and the infatuated devotee, instead of withholding the boon demanded, however great, exulted to be thought worthy of the partial favour of heaven in accepting it.

The merchant was equally protected in his property with the husbandman; a moderate tribute paid the government, for liberty to exercise his employ, secured him that protection. The artisan, the labourer, upon the same terms, shared similar advantages. Every name was enrolled according to his cast, his occupation, and his rank in that cast. A most rigid and vigilant police pervaded equally the city and the country. Innumerable officers were appointed in every district of the empire to collect those tributes, to inspect the state of the public roads, and those objects of high importance in a country occasionally subject to droughts from defective inundations, the *tanks*, or reservoirs; to mark out anew the boundaries of lands desolated by the ravages of the more violent and destructive ones; to superintend the public inns, or *choultries*, destined by this hospitable nation for the accommodation of pilgrims and strangers; to preserve, free from annoyance or

obstruction, the passages through forests and over the great rivers in a country where a vast internal commerce vigorously flourished; and, finally, to transmit to the fountain of government constant and faithful reports of whatever fell beneath their jurisdiction, in which the least fraud or prevarication was punished with death. The legislative code sanctioned and fortified the vigour of the police with all its authority, minutely pointing out to every class its peculiar duties, and alternately uttering, as the party seemed most likely to be affected by it, the soothing language of reward or the menaces of vengeance.

Thus the merchant is animated to liberality in dealing by the noblest precepts and incentives; the mechanic is deterred from injustice—the false weight and the deceitful balance, by the most dreadful denunciations of the vengeance of heaven against extortion; while the menial servant and labouring *cooley* are comforted with the cheering hopes that diligence in their respective stations will procure them favour in the sight of the all-seeing Brahma, and that their abject situation in this transitory world is only meant to prove their virtue and integrity amid the pressure of reproach and poverty. In truth, the situation of all the inferior classes is attempted to be made easy to them by perpetually impressing the

maxim that they are only doing penance in those humble stations for crimes committed in a former state of being ; and, though the limits assigned their sphere of action in this stage of existence are irrevocably fixed, yet the path is open for persevering virtue and piety to gain the summit of perfection in another stage of it, — even to be born again in the lofty Brahmin cast and rule the race of monarchs, at whose nod they now tremble. The tribe of Chandalah, or *the outcast tribe*, awakens horrible ideas in the human mind ; but, as I have nothing new to offer on the subject, I must refer the reader to what I have related in a former volume concerning that despised and miserable race.

In every retrospect on the ancient Hindoo government it will be observed, that, while its politic legislator held out to persevering virtue and patient obedience the most alluring rewards, it assumed the most inflexible aspect towards criminals of every description. To temporal punishments the most dreadful, and to corporeal mutilations the most sanguinary, in order to impress his mind with deeper reverential awe, were added all the terrors of the spiritual anathema, tormenting dæmons and the *gebenna of gnawing serpents* ; for that is the true Hindoo hell, and demonstrates the intimate connection of its theological system with our own, of which

in its leading features, it is an evident perversion. What is not a little singular in this code, these present punishments and future terrors are often denounced against crimes comparatively trivial, with as much violence as against offences of the deepest enormity, as will hereafter be sufficiently manifest ; in short, the stern dogmas inculcated by it, sanctioned by the combined authorities of heaven and earth, allowed of no relaxation in the severe discipline which it enjoined whether in moral or civil concerns. It was the awful manifesto of the deity ; and, both in its sublimest and least important injunctions, the strictest obedience was alike indispensable. " PUNISHMENT," says the Hindoo code, " is the magistrate ; punishment is the inspirer of terror ; punishment is the nourisher of the subjects ; punishment is the defender from calamity ; punishment is the guardian of those that sleep ; punishment, with a black aspect and a red eye, terrifies the guilty."* Consonant to this maxim, the laws of Draco himself were not more deeply engraved in blood than many of the precepts in this tremendous code. These sanguinary maxims it is impossible to ascribe to Menu : what was *remembered* from that legislator was, we may conclude, *only severely just*, but not cruel ; we may rea-

* Halhed's Code of Gentoo Laws, cap. 21. sect. 8.

sonably refer to him all that is mild and humane in these Institutes, and some necessary precepts of a more rigorous nature; but, as his progeny degenerated, as the people gradually became more corrupt, the princes more despotic, and the Brahmins, more powerful, it was thought necessary to add new and more terrible laws to those which, in the primitive ages, were deemed sufficient to control the disturbers of the public tranquillity. The hypothesis on which this work and that of Mr. Bryant have constantly proceeded, and both of which record the invasion of India in early periods, and the conquest of the virtuous Shemites by the daring and nefarious Cuthite race, will sufficiently point out to the attentive reader the period of this great national change, and the fatal cause of this general depravity.

It should still be remembered, however, that many of the laws inculcated in the Brahmin code are in a high degree liberal and humane, founded on the practice and decisions of the earliest ages, when, as yet, no system of jurisprudence was committed to writing. Many also of the civil institutions, enumerated in it, go back to the days of Noah, though most have been dreadfully perverted; for, I must repeat in this place what has been frequently asserted in this work, and, indeed, forms in some degree the basis of it, that in the ancient world there

were certain grand and primitive customs diffused universally over all nations ; customs founded on the general consent and original creed of mankind, confirmed by immemorial laws and sanctified by pious traditions ; customs which probably flourished in their full vigour and purity, under the domestic patriarchal roof of Noah, before the dispersion, which passed into all nations with the first colonists, and were observed in their vigour and purity, or debased and degraded in every country, according to their rectitude in adhering to, or depravation in receding from, the institutions of their primæval ancestors. For the aspect of unrelenting severity assumed in general by legislative codes of very high antiquity, it may be urged as some degree of palliation, that the crimes, against the commission of which they were principally meant to guard, are not such as generally spring up among mankind in an associated and civilized state ; but such dreadful offences as men scarcely emerged from barbarism, and under the influence of all the unbridled passions which agitate to tempest the human bosom, may be supposed capable of perpetrating : incest of the deepest dye, plunder and robbery, midnight murder, and the violation of virgin beauty. Against these crimes, so fatal to infant states, it was necessary to

raise the strongest rampart which the terror of regal authority could erect against them, and the extreme necessity of the occasion will too often justify their being *written in blood*.

In eastern climes, where despotism has ever reigned in its meridian terror, in order to impress the deeper awe and respect upon the crowd that daily thronged around the tribunal, the hall of justice was anciently surrounded with the ministers of vengeance, who generally inflicted, in the presence of the monarch, the sentence to which the culprit was doomed. The envenomed serpent that was to sting him to death, the enraged elephant that was to trample him beneath his feet, the dreadful instruments that were to rend open his bowels, to tear his lacerated eye from the socket, to impale alive, or saw the shuddering wretch in sunder, were constantly at hand to perform their destined office. The audience-chamber, with the same view, was decorated with the utmost cost and magnificence, and the East was rifled of its jewels to adorn it. Whatever little credit may in general be due to Philostratus, his description of the splendid palace and regal pomp of Musicanus too nearly resembles the accounts, given us by our own countrymen, of the magnificence which at present distinguishes those more powerful rajahs, who still retain a portion of

their ancient hereditary rights and domain, to admit of doubt, especially in those times when, as yet, the hoarded wealth of India had not been pillaged by the avarice of successive Mahomedan plunderers; the artificial vines of gold adorned with birds of various colours in jewellery, and thick set with precious stones, emeralds, and rubies, hanging in clusters, to resemble grapes in their different stages towards maturity; the silver censers constantly borne before him, as a god, in which continually burned the richest perfumes of the East; the robe of gold and purple with which he was invested; and the litter of gold, fringed with pearls, on which he was carried in a march or to the chase.* The Mahomedan sovereigns, doubtless in imitation of the splendour in which the ancient Indian monarchs lived, had also their vines of gold, thrones encrusted with diamonds, and ceilings plated with silver, as may be seen in the chapter of the Geographical Dissertation, that relates the magnificent decorations of the imperial palaces of Delhi and Agra in the times of the emperors Jehaun and Akber.

In short, whatever could warmly interest the feelings and strongly agitate the passions of men; whatever inflames hope or excites

* Philostratus, lib. iii. cap. 26. Curtius, lib. viii. cap. 9.

terror ; all the engines of a most despotic superstition and of a most refined policy were set at work for the purpose of chaining down, to the prescribed duties of his cast, the mind of the bigotted Hindoo ; to enforce undeviating obedience to the law, and secure inviolable respect for the magistrate. Hence his unaltered, his unalterable, attachment to the national code and the precepts of the Brahmin creed. As it has been in India from the beginning, so will it continue to the end of time and the dissolution of nature : for the daring culprit who tramples on either, heaven has no forgiveness, and earth no place of shelter or repose.

CHAPTER II.

The Age of the INSTITUTES of MENU, as ascertained by astronomical Computation, reaches back so very near to the Flood, as to justify the Conclusion that they exhibit to us the shattered Remains of the grand PATRIARCHAL CODE, but debased, and perverted to political Purposes, by the Brabmins.—Mr. Halhed's GENTOO CODE and the INSTITUTES the only genuine Sources of European Information on the Subject of ancient Indian Jurisprudence.—In many Instances, both strongly resemble and illustrate the LEVITICAL Law.—Some of those Instances adduced, together with numerous Proofs of their being very sanguinary and partial Codes.—Mr. Halhed's being rather a Summary of adjudged Cases, than a complete Digest of Indian Law, is first considered.—A regular ANALYSIS is then attempted of the Work of MENU through its Twelve grand Divisions; interspersed with such Observations as suggested themselves to the Author in making it.

HAVING taken the preceding general survey of this ancient and wonderful code of Indian jurisprudence, and of the spirit that breathes throughout it, I shall, in this chapter, after a few introductory observations, proceed to give a summary analysis of each of the twelve chapters it contains, and notice such other striking particulars in it as are more remarkably deserving of attention. In these prefatory observations, I shall have before me both the Institutes as presented to the public by Sir William Jones, and the Hindoo Code of Mr. Halhed, which was compiled by venerable Brahmins as an epitome of that and other ancient law-treatises now grown in some degree obsolete, or, at least, in less general use.

The Institutes are stated by the translator, in the elegant preface that introduced them to the European world, to be of a date far anterior to the laws of either Solon or Lycurgus; the first promulgation of them, as a code of laws, he is of opinion, was coæval with the establishment of the first monarchies in Egypt or Asia; and, by an ingenious astronomical calculation, strengthened by the internal evidence of the book itself, he endeavours to prove that the first reduction of them to writing, in their present form, was in the year 1280 before

Christ. A very long series of ages must, indeed, have elapsed before a body of laws so extensive, so complicated, so minute in its decisions upon almost every possible species of offence committed against the peace of society, and abounding with such excellent maxims for the wise government of a vast empire, could have been collected together, and the cases in civil, religious, and commercial concerns, which are enumerated in the course of it, have been determined. We are led gradually back by this statement and these reflections to the earliest post-diluvian centuries, and perceive, amidst a thousand interpolations of artful priests and interested legislators, certain, though faint, gleams of the patriarchal code that prevailed in the first ages.

A tradition very generally prevailed among the ancient Hebrews, that, after Noah had descended from the ark and offered to God that acceptable sacrifice which preceded the covenant the Almighty condescended to make with him, that he would never again inundate the globe, the great patriarch, at the same time, received certain general laws for the regulation of the conduct of the human race at large, till the more particular manifestation of his will from Sinai. These are, in number,

seven, and are denominated the *precepts of the Noachidæ*.* By the first of these precepts, idolatry, or the adoration of false gods, is forbidden; by the second, blaspheming the name of the Creator; by the third, the shedding of human blood; by the fourth, incestuous and unlawful conjunctions are prohibited; by the fifth, the plunder of another's property; by the sixth, the eating of flesh cut off from the living animal; and, by the seventh, a solemn injunction is given for the institution of judges and magistrates to enforce obedience to the above laws. In these precepts, according to the Hebrew rabbins, are summed up the great principles of the Law of Nature; which, however, are more justly and concisely stated, in Justinian's celebrated code, to be included in the three following comprehensive maxims; that we should live honestly, molest nobody, and render to every man his due.

In truth, the best rule of human conduct, independent of revelation, is the *light of un-abused reason*, which is very properly considered, by Grotius, as the great original Law of Nature, coæval with the creation of man, formed in *that* radiant image of his Sovereign Maker; a law, the peculiar growth of no clime, age,

* Selden de Jure Nat. et Gent. lib. i. cap. ult.

nor condition, but operating, with various energy, in every region, and among every people of the habitable globe.

This law, simple, perspicuous, sublime, continued, for a time, to be the ruling guide of man's conduct, till passion, gaining the ascendant, obscured the light of that glorious internal principle, and, precipitating Reason from her throne in the human bosom, usurped the sovereignty over his will and appetites. Still, however, though the light of reason became eclipsed, the Almighty Ruler had originally so formed man as not to leave himself entirely without a witness in the human mind. To the superintending and directing power of reason, he added another internal principle intended to limit the excess of vice and control the predominant fury of passion. It is that principle to which we all are so intimately conscious, which determines what is morally right or wrong in human action, and whose judgment is attended with consequent self-applause or condemnation. This solemn and secret monitor, occasionally lifting its awful voice, prevented that rapid immersion in guilt, into which his passions, entirely unrestrained, would otherwise have hurried deluded man, and his descent down the stages of vice was slow and gradual. In process of time, however, the criminal affections,

from repeated indulgence, becoming more headstrong and ungovernable, the admonitions both of the *thinking* and the *judging* power were alike disregarded, and human nature was degraded by the basest enormities. The scene then became totally and dreadfully altered. The ties of kindred, the strongest and most pleasing, were universally spurned; the sacred duties of hospitality were neglected; the sword determined all rights; and rapine and violence desolated the whole earth.

In the horrid and convulsed state above described was the ancient world, when it pleased the Deity, by a dreadful exertion of his power, to put a stop to the farther growth of iniquity, and to exemplify his justice in the destruction of it. To the father of the renovated world he doubtless vouchsafed, as has been hinted, a more peculiar manifestation of his will for the government of its new inhabitants, and probably some general precepts, like those ascribed to the Noachidæ, were imparted to him. These may in part have formed the basis of the ancient code under consideration, but the numberless puerilities, the endless train of superstitions, some afflictingly painful, and others disgusting in the extreme, the fanciful doctrine of transmigration interwoven with the very substance of it, the false philosophy

inculcated in it, and the extremely sanguinary punishments sometimes denounced in it, must be referred to the artful policy of the Brahmins, and to despotic princes who succeeded the first great legislator. The doctrines it contains are said to have been *orally* delivered by Brahma to Menu; a circumstance deserving consideration, as opening a wide and almost boundless field for fraudulent interpolation; at the same time its precepts are sanctioned by the most dreadful anathemas, and extend the horror of punishment to the most distant scenes of existence.

One of the most remarkable precepts in this code is that so congenial with the Levitical law, that a brother shall marry the *widow* of the *deceased brother*, and raise up seed to him; this law, however, is declared to be obsolete in this miserable Calé age. Institutes, p. 363. Another of its ordinances, which also affords a striking resemblance to the code of Moses, doubtless founded on the practice of the primitive ages, and ordained as a memorial of the great atonement, is the ceremony of the *scape-horse*, which is ordained to be celebrated in a public assembly of all the Hindoo tribes; and the horse, after many mystic rites, like the *scape-goat* of the Hebrews, and we may add the *red*

beifer of the Egyptians, * is driven with execration into the deserts, and supposed to be loaded with the sins of the exonerated nation.† There cannot be the least wonder at these and many other striking circumstances of similitude occurring in the two codes, entertained by those who have attentively perused the preceding volumes, and considered the plan upon which I have constantly endeavoured to explain these resembling traits in the ancient customs and codes of Asia. Indeed Mr. Halhed, in his preface, intimates that the very name of the country is derived from *Hind*, whom Eastern traditions make the son of Ham, and consequently the grandson of Noah.‡ But, whether he were or not, we are certain from their own records, and from the general worship of Rama prevailing at this day throughout their whole empire, that this grandson of Noah, this mighty chieftain, this conqueror of the degenerated race of rajahs, was the first regular universal monarch of India; and from the same source, it is natural that a code of laws, similar in its great outlines, should proceed. A great portion of the Mosaic code, indeed, was indubitably *inspired*; but, as indu-

* Herodotus, lib. ii. cap. 39.

† See Halhed's *Gentoo Code*, preface, p. 21.

‡ Ibid.

bitably, a considerable part of it was the result of primitive precepts and customs, which, from immemorial prescription, were already diffused and predominant in the East.

An eye for an eye and a tooth for a tooth appears to have been the rigid maxim of the ancient Hebrews : and it is here affirmed, that, with whatever limb an offence is committed, that limb shall the king amputate, for the prevention of similar crimes. Institutes, p. 232.

The trial by various kinds of water ordeal, which so repeatedly occurs throughout these codes, as the criterion of guilt and innocence, forcibly reminds us of the similar trial ordained, by the Deity himself, for the detection or acquittal of adultery by the *bitter water of jealousy*. Numbers, v. 30. The prescribed diet and strict attention enjoined in regard to animals clean and unclean, as well as the purifications of women and of men after contact with a deceased person or any object that imparts defilement, have also a very striking resemblance with those enjoined in the Levitical code. Those in particular that have relation to bodily impurity, from touching a dead body, are enumerated in almost similar words in the nineteenth of Numbers ; a circumstance for which I have already endeavoured to account. Though slavery be

allowed, the crime of *men-stealing* is equally interdicted in the Hindoo and Levitical code. See. Deuteronomy, chap. xxiv.

“In short, the whole office,” says Mr. Halhed, “as well as the sacred pre-eminence of the Brahminical tribe, is almost an exact counterpart of that of the Levitical. The Levites were particularly forbidden wine; so are the Brahmins. The Levites were more than others enjoined to avoid the contact of all uncleanness; so are the Brahmins. The Levites were to assist the magistrate’s judgment in difficult cases; so are the Brahmins. And, in every other respect, the resemblance might well authorize a suspicion, that they had originally some remote affinity to each other, though conjecture cannot possibly trace the source of the connection.” In answer to this remark, I beg leave to express a hope that I have effectually traced that source, by a traditional channel, to a primæval patriarchal code.

But, subjoins our author, it is not only to the laws of Moses that this code bears a striking likeness; many other parts of the Holy Scriptures may hence be elucidated or confirmed. To mention only two instances: in the book of Genesis we find Laban excusing himself, for having substituted Leah in the place of Rachel to Jacob, in these words: *It must not*

be so done in our country, to give the youngest (daughter) before the first born : this happened long before Moses was born. Thus, in the Hindoo code, it is also made criminal for a man to give his younger daughter in marriage before the elder, or for a younger son to marry while his elder brother remains unmarried.

There is a peculiar law also in this code, by which a father is prevented from dispossessing his children of their property in favour of aliens, and by which he is compelled to give them, if they demand it during his lifetime, even though disobedient and rebellious, the distinct portion which falls to the lot of each : this is highly illustrative of the parable of the prodigal son.

In proof of the unrelenting severity of the Hindoo code, in PENAL CASES, I have put together the few following examples.

An adultrass is condemned to be *devoured alive* by dogs in the public market-place. Institutes, p. 236. In the next sentence, the adulterer is doomed to be bound on an iron bed, *beated red-hot*, and there to be burned to death. Ibid. But, what is not a little remarkable, for the same crime, a Brahmin is only to be punished with *ignominious tonsure*. P. 237. He, who has committed *incest*, is doomed to be extended on a red-hot iron bed, or be made to embrace, till he die, the *red-hot iron image*

of a woman. P. 322. Of night-robbers it is ordained, that the hands be first lopped, and that they afterwards be fixed on a sharp stake, *i. e.* impaled. P. 281. The witness, who gives false evidence, shall be fast bound under water, in the snaky cords of Varuna, for a hundred years. P. 199. Naked and shorn, tormented with hunger and thirst, and *deprived of sight*, shall the same man go with a potsherd to beg food at the door of his enemy. P. 201.

For insulting a Brahmin with invectives, an iron style, ten fingers long, shall be *thrust red-hot down his mouth*: for offering only to instruct him in his profession, *boiling oil* shall be dropped into his mouth and ears. P. 224. For stealing kine, belonging to priests, the offender shall instantly lose *half of one foot*. P. 231. An assaulter of a Brahmin, with *intent* to kill, shall remain in hell for a *hundred years*: for actually striking him with the like intent, a *thousand*. As many small pellets of dust as the blood of a Brahmin collects on the ground, for so many thousand years must the shedder of that blood be tormented in hell. P. 336. But, though such frequent exemptions occur in respect to the Brahmins, descended from heaven, a portion of the immortal gods, none are made in favour of KINGS; and we cannot but admire the rigid spirit of impartial justice that declares,

where a man of inferior birth shall be fined *one pana*, the king, who ought to be the fountain of honour and equity, for the same offence shall be fined a *thousand*. P. 232.

Having had occasion to refer above to Mr. Halhed's Code, which I before observed is rather an abridged than a complete statement of the general jurisprudence of India, compiled, from their most venerated books on the subject, by learned Brahmins assembled, by the invitation of Mr. Hastings, at Benares, in 1773; I shall, in this place, insert a few other remarkable precepts from that book, and close my observations upon it, that our subsequent attention to the institutes themselves, the grand original Code of Menu, may not be interrupted.

Several very sanguinary personal inflictions in penal cases occur there also; and, among other severe precepts, it is ordained that, if a man be guilty of gross fraud in trade, the magistrate shall crush his hand, nose, and teeth: if he repeat that fraud, the magistrate shall cut him into pieces with a *razor*. P. 245, quarto edition. Women, murdering their husbands or children, shall have their ears, nose, hands, and lips, cut off, and afterwards be exposed, if not pregnant, to be killed by cows: if they attempt to do it by poison, the punishment decreed is to have a large stone fastened round their neck,

and themselves thrown into the river. P. 306. Theft of goods is punished with, in the first instance, cutting off the hands; in the second, with crucifixion. P. 248. For stealing a woman, the criminal shall perish extended on a plate of red-hot iron. Ibid. For stealing an elephant, a horse, camel, or cow, one hand and one foot of the criminal shall be amputated. P. 249. Even the Brahmin that steals is, with great severity, punished corporally or banished, but never put to death; his hair may be cut off, his eyes torn out, and, what is rather a curious kind of punishment, resembling that anciently inflicted by Sesostrius on cowards, his forehead is to be marked, by means of a red-hot iron, with the *pudendum muliebre*. P. 245. According to this code, adultery, in the male, is punished by total castration, and the offender, it is added, shall afterwards be led naked round the city, mounted on an ass. P. 271. Adulterers, whose crime admits of extenuation, as when deluded by the artifices of abandoned women, are branded in the forehead with the *pudendum muliebre*. Ibid. Unlawful games are punished with a fine and corporal punishment, at the will of the magistrate: fraudulence at play with the loss of two of the fingers. P. 289.

Destroyers of fruit-trees, or trees of sacred

use, and removing land-marks, are mulct with very high fines. P. 291. Of all domestic merchandize the king has a tenth for his tribute ; of foreign merchandize a twentieth. P. 292. The inferior mechanic, labouring at his daily employ, shall suffer no deduction from his profit ; and no tax shall be paid for articles used in the service of the temple. P. 293. In the article of diet, onions, garlic, and wine are absolutely forbidden on pain of banishment. P. 295. Persons who have no children, by applying to the magistrate, may adopt sons, and they inherit as legal children. P. 298. The owners of elephants, oxen, and other animals, are responsible for all mischiefs done by them, and subjected to high fines for their want of attention to them. By similar penalties, the wearied or hungry bullock must not be forced to labour, nor ever worked beyond his strength or out of due season. P. 299. Medicines administered to cows to prevent their calving, malicious attempts to blight trees and plants, or prevent their bearing fruit, are taxed with heavy fines. The father must not desert his son, nor the son his father ; the brother his brother ; nor the friend his friend ; without solid proof of guilt : those who offend in these points, are menaced with fines. The blind, the lame, the deaf, the unfortunate of all descriptions, must be respected

in the public streets, and have the way left clear for them. The subject must give way to the magistrate, the pupil to the preceptor, and all to the Brahmin, under various penalties and fines. P. 302.

The Gentoo code, after enumerating an endless variety of local injunctions, principally respecting personal duties and purifications, provincial commerce, morals, obedience to superiors, and the regulation of domestic concerns, concludes with a sentence remarkable for the wise, but severe, spirit of equity that distinguishes it, allotting punishments and fines adapted to the degrees of knowledge and improvement supposed to be attained by each, and therefore rendering their offences proportionably heinous or mitigated. It is on the subject of theft, a subject which so constantly occurs, that we are unavoidably led to conjecture that the great mass of the Hindoos are less strictly honest in their dealings than they are, by some travellers, represented. If a Sooder, one of the lowest of the four classes, commits a robbery, he shall pay eight times as much as he stole: if a Bice, he shall pay sixteen times as much; if a Khettri, he shall pay a fine of thirty-two times as much; if he be a common Brahmin he shall pay sixty-four times as much; if he be a Brahmin of extensive knowledge, he

shall pay one hundred times as much ; if he be a Brahmin of the highest class, he shall be fined one hundred and twenty times as much.

Final page. If the same liberal cast of sentiment ran through every page, what a sublime and glorious system of jurisprudence would this code have presented to Europe?

THE LAWS OF MENU,

SON OF BRHAMA.

CHAP. I.

This initial chapter properly begins with an account of the creation of the world, and a general survey of the objects contained in it.

Menu is represented, in the first verse, as sitting reclined and wrapped in that divine absorption which, it has been often observed, is a leading tenet in the religion of India. The holy sages approach him with profound reverence ; and, inquiring concerning the laws proper to be observed by the four orders, (a proof that the Indian empire was then formed, and this division of the nation then existing,) he unfolds to them the principles of all things and the manner and progress of creating them. It is here observable that water (not *light*, as

in the Mosaic narration) is first produced; produced, not by a *mandate*, but by a *thought*, of the Creator. In that water is placed a productive seed which becomes an egg of gold (the sphere) blazing with a thousand beams. By the same *thought*, he caused that egg to divide itself in two parts, and, from these two divisions, he framed the heaven above and the earth beneath.

The visible world being thus formed, the immaterial mind is produced, an emanation from the *Supreme Soul*; and consciousness, or rather conscience, the internal monitor. The creative spirit then proceeded to form the inferior deities and a number of genii exquisitely delicate. It is sublimely added, "He gave being to time, and the divisions of time; to the stars also and the planets." He then produced the four great tribes, or casts of India; the first from his *mouth*, the second from his *arm*, the third from his *thigh*, and the fourth from his *foot*. It is asserted that the Hindoos understand these expressions in a literal sense; but it is impossible for a dispassionate European reader to consider them in any other than an allegorical point of view. By the mouth, therefore, Menu must be understood to have meant *wisdom*; by the arms, *strength*; by the thigh, *commerce*; by the foot, *agricultural labour* and

obedience : and the principle inculcated, I conceive, is, that wisdom or piety, (for, both may be fairly shadowed out by the *moult*, whence the dictates of the one and the prayers of the other proceed,) strength or fortitude, external commerce, and domestic industry, form the four pillars of a great empire. Hence the four-fold politic division of the Indian nation into casts and professional characters, intended eternally to inculcate, on legislators and princes, that important axiom.

Immediately after, succeeds a detailed account of created objects animal and vegetable, from the elephant to the gnat, from the lord of the forest to the creeper ; and, what is singularly remarkable, all these are declared to have internal consciousness, all to be sensible of pleasure and pain, all in a state of transmigration in a world ever tending to decay.

The divisions of Hindoo time, divine and human, from the twinkling of an eye to the day of Brahma, or a thousand great ages, are next enumerated, and the four yugs are affirmed to be the allotted period of probation for the human race, or, rather, for countless races of human beings, “ breaking like bubbles on the stream of life.” Among these, the Brahmin, eldest-born of the gods, who loads their altars with incense, who feeds them with clarified

butter, and whose, in fact, is the wealth of the whole world, ever keeps his elevated rank. To maintain him in holy and voluptuous indolence, the Kattry, or rajah, exposes his life in the front of battle; the merchant covers the ocean with his ships; the toiling husbandman incessantly tills the burning soil of India. We cannot doubt, after this, which of the Indian casts compiled this volume from the *remembered Institutes* of Menu.

CH A P. II.

The second chapter is entirely devoted to the important concern of the education of the young Brahmin, and the consideration of the duties incumbent on the sacerdotal class, or first order.

Near the commencement it is declared that the great body of the ecclesiastical and civil laws of India is derived from two original sources, the *SRUTI*, or what was heard from above, meaning revelation; and the *SMRITI*, or what was remembered from the beginning, meaning immemorial usage. The man is declared anathematized who treats with contempt those two fountains of all genuine jurisprudence; for, in truth, were those dogmas to be

rejected, the Brahmin dominion over the consciences and fortunes of the Indians must inevitably fall to the ground. The consecrated land, or paradise of India, is next, with geographical precision, ascertained, and the SMRITI laws are declared to have been the immemorial usage of that favoured region, when man flourished in happiness and innocence.

The manner of educating the young Brahmin is now prescribed from his birth, and the minute attention paid, in every stage of that education, to cleanliness of person and vestment, evinces that the sacerdotal order of India, like those of ancient Egypt, consider the cultivation of *health* as no inconsiderable part of religion. They seem, also, to have laid it down as a maxim, that a pure soul cannot exist in an impure body, and that every new birth, in the fleshly tabernacle, conveys something more than a corporeal pollution. It is scarcely possible, consistently with decency, to detail their ideas on this delicate subject; yet must they not be passed over wholly unnoticed.

Thus, oblations to fire, that purifies all things, and holy rites on the birth of the child, expunge the seminal and uterine taints. Before the section of the navel-string, the infant Brahmin must be made to taste honey and clarified butter from a golden spoon. He must be named on

the tenth or twelfth day, at a lucky hour and under the influence of a benign star; a proof that they cultivated astrology at this early period in India. On the fourth month he is to be carried out to see and admire the SUN, the secondary god of his future devotion. In the second or third year, after his birth, the ceremony of tonsure must be performed; this was an old practice of the priests of Mithra, who, in their tonsures, imitated the solar disk. In the eighth year he is invested with the zennar, or sacred cord of three threads, in honour of the divine triad of India, Brahma, Veeshnu, and Seeva. He must afterwards put on a mantle formed of the hide of a black antelope; he must have a girdle, the zodiacal zone of the Mithriac priests, formed of *munja*, or *cusa*, grass; he must have a wand or staff of bilva or palass wood of such a height as to reach his hair, and the staff must be straight, smooth, and without fracture. Thus apparelled, and standing opposite to the sun, he must thrice walk round the fire from left to right, (a ceremony which fully proves the origin of the triple turn, *sun-ways*, of the Druids,) and then legally perform the ceremony of begging food of his relations. To explain this, I must observe that the Brahmin is always *supposed* to live by the charity of others, and to be a miserable mendicant in this transient world of sin and

sorrow. In another part of this chapter we are informed, that “ the subsistence of a student by begging is held equal to fasting in religious merit.” He must eat this eleemosynary food with his face to the east, and, having eaten it, he must thrice wash his mouth completely, and afterwards sprinkle, with water, his eyes, ears, and nostrils. Thus end the ceremonies indispensable to the infant Brahmin : let us attend him, in mature youth, to his studies and his preceptor.

He must observe the most rigid temperance, and, as he grows up, the most unsullied chastity, even in thought ; or all his prayers, and all the instructions of his venerable tutor, will only inflame his guilt. He must attend his preceptor, arrayed in all the ensigns of his order ; at the beginning of the lecture perform an ablution ; read, or hear read, the Veda with hands devoutly closed ; and, after the lecture, he must perform a second ablution, clasping, with both hands, the feet of the reverend father. He must, a thousand times in a day, if possible, pronounce to himself the mystic word *om* (the fire of the solar orb). There is a wonderful potency in that word ; it purifies, irradiates, and sublimes, the soul ; it secures beatitude, and gains immortality. He must perform, for his tutor, the office of a servant without reward. By his hands the

consecrated wood, for the sacrificial fire, must be gathered ; by his hand the flame kindled ; he must carry the water-pots for ablution, the flowers, fresh earth, and cusa-grass, used in the sacred ritual ; and, at intervals, intensely read the holy Veda, and implore food around all the district.

Nothing can be conceived more severe than this state of servile pupillage, which continues to the twenty-fifth year ; it shews the abject obedience in which the elder Brahmins hold not only the younger of their own order, but all the orders dependent upon them. Many of the stanzas, in this chapter, contain very excellent moral doctrines, though much overstrained. By others we are filled with sentiments of detestation and horror at the sanguinary interdictions contained in them, for the most trivial faults and the most pardonable sallies of youth. At the close of this long vassalage, the Brammassari, when he leaves his preceptor to return to his natural father, is subject to a mulct, and must gratify the avarice of the holy Indifferent with the best gifts in his power, a piece of land, a present of gold, a jewel, a cow, a horse, or some similar present. The ultimate reward, however, for this patient servitude and voluntary munificence, is not a little flattering ; for the last stanza declares, that “ the twice-born

man, who shall thus, without intermission, have passed the time of his studentship, shall ascend after death to the most exalted of regions, and no more again spring to birth in this lower world."

C H A P. III.

In the third chapter are discussed the TIME and DUTIES of marriage.

Having passed through the state of pupillage, according to the rigid rules laid down in the preceding chapter; having obtained his tutor's consent, and received from him a present of the Vedas, the young Brahmin is permitted to espouse a wife of his own tribe, but not within the *sixth degree* of consanguinity. Some very judicious, and other very curious, rules are laid down for his conduct in the choice of a wife; in particular, he is recommended not to marry any woman with red hair, deformed in her limbs, or immoderately talkative, nor into any family that has produced no male children, or that is subject to any hereditary complaint, as phthisis, epilepsy, and elephantiasis. Let him, say the wise Institutes, choose for his wife a girl whose form has no defect, who has an agreeable name, who walks gracefully, like

a phenicopteros, or like a young elephant, whose hair and teeth are equally beautiful, and whose body has exquisite softness. A marriage, in any tribe below his own, degrades him, but still it may be contracted; he may legally espouse four wives according to the number of those tribes. There are eight forms of marriage, four are holy and four are impure. They are enumerated, and the latter are to be avoided, because it is declared that a guilty marriage invariably produces a miserable offspring. If a Brahmin marry a girl of the Kattri tribe, she must approach the nuptial fire bearing an arrow in her hand; if one of the Bice tribe, a whip; if one of the Sudra tribe, she must hold the skirt of a mantle; I presume as a mark of her being of the lowest class. The instructions of this pious book are so very minute as to descend to a description of the proper periods, that is, the auspicious nights, for conjugal embraces; and many other circumstances which it would be neither useful nor decent to insert in this epitome.

The Brahmin must be constant, affectionate, and indulge his wife in all the innocent diversions and all the personal ornaments suitable to his rank and abilities; and the perfection of nuptial felicity is thus summarily described and forcibly recommended. “ In whatever family

the husband is contented with his wife, and the wife with her husband, in that house will fortune be assuredly permanent." Being now become a housekeeper, maxims, appropriate to his new station, are inculcated; the successive sacrifices and ablutions to all the gods and genii respectively; "by day, to the spirits who walk in the light; and by night to those who walk in darkness." The numerous and varied duties of hospitality, to different guests, according to their rank and consequence, are now laid down and strenuously recommended. They impress the mind with the liveliest idea of the generous liberality of the benevolent race of ancient Indians. This chapter concludes with a very ample and curious detail of the ceremonies customary at that particular sacrifice which the Indians denominate SRADDA, or oblation to the manes of their departed ancestors, who are represented as exulting in delicious repasts of rice, honey, and clarified butter, offered up to them by their grateful descendants; and as blessing the pious donors through a thousand generations;

CHAP. IV.

On Economics and private Morals.

The art of prudently managing domestic concerns, and the legal and honourable methods by which a Brahmin may increase a scanty income, are here discussed: his chief business is about the altar, he must constantly attach himself to some consecrated fire, he must duly and devoutly perform the offices of religion, and be particularly attentive to those rites which are performed at the end of *the dark and bright fortnight, and at the solstices*; another proof how early they knew the solstice, and had brought astronomy into the aid of religion. In his person he must, like the priests of Egypt, preserve a scrupulous cleanliness; his hair, nails, and beard must be clipped; his passions subdued, his mantle white, his body pure; carrying in his hand a staff, or wand, an ewer of water, a handful of *cusa*-grass, or copy of the *Veda*, with golden rings in his ears. The same rigid attention to cleanliness must be kept up in the minutest article of life and conduct; in his conjugal commerce, in the necessary evacuations, &c. (all described in very disgusting detail,) a more than Mahommedan

severity must be observed. His manners must always partake of the gravity of his profession; he must neither dance, nor sing, nor play on musical instruments, except in religious rites; he must neither play at dice nor associate with any who do, or gain their livelihood by dishonourable and low means: the company even of a king, not a rajah by birth, is an eternal disgrace to the high-born Brahmin.

Having risen with the twilight, having performed his ablutions, repeated the Gayatri, and lighted the sacred fire, he must intensely, throughout the day, study the *Vedas*, and regulate his conduct by its sacred rules. Let him delight in truth, in justice, in benevolence; let him not give way to either arrogance or pusillanimity; neither be the votary of pleasure, nor the slave of gloom and despair. Let him walk in the path of good men, the path in which his forefathers delighted to walk. Let him honour his parents, respect his guest, be tender to his offspring, gentle to his servants. Let him avoid covetousness, and not be greedy of presents, of which the Brahmins receive many. Let him be scrupulously delicate in regard to what food he eats, and with whom he eats it: the most dreadful violation of his character is inseparable from eating with one of an inferior cast. Towards the conclusion of this chapter

there occur some very sublime passages concerning the soul, and the radiant rewards that will, in a future state, be the consequence of a life thus passed in unsullied piety; and the final verse is as follows: “a priest who lives always by these rules, and who is freed from the bondage of sin, shall be absorbed in the divine essence.”

CHAP. V.

On Diet, Purification, and Women.

The precepts inculcated in this chapter are almost entirely of a local nature, and an enumeration of them, even in the most abridged way, would be little interesting or instructive to an European. Under the first article, the banquet of blood, the food of animals, is positively forbidden, except of those offered in sacrifice; for it is expressly declared that “as many hairs as grow on the beast, so many similar *deaths* shall the slayer of that beast, for his own satisfaction in this world, endure in the next from birth to birth.” Under the second head are discussed the necessary purifications appointed for those who have been defiled by the touch of a dead body, for those who have had illicit concern with women; for

women themselves, after the puerperal and menstrual taint; for accidental contact with a *Chandalab*, or outcast: many of these are appointed to be by the *fire*, but far more by the *water*, ordeal, and the duration generally from three to ten days. The third article exhibits to us a striking proof in how contemptible a light the amiable part of our species is holden by the fastidious, frozen, self-admiring Brahmin, who would bind the loveliest beauty in eternal chains, and subject the most tender affection to neglect and cruel dependance. By the Indian, in this respect abominable and unsocial, code, a woman through every stage of life must be kept in perfect vassalage; in childhood, to her father; in youth, to her husband; at his decease, to her sons and his kinsmen. The stern dogma decides that “a woman must never seek *independence*.” Other circumstances, equally degrading to the sex, are added, *by the Brahmins*, we must suppose; for precepts like these can never have formed a part of the patriarchal code, since the Hebrew patriarchs well interpreted that passage in Genesis relating to the creation of woman, that by her being taken out of the *side* of Adam, and not from any superior or inferior part of his body, was denoted her *equality* with her husband.

CHAP. VI.

The sixth chapter is entirely on DEVOTION, and discusses the duties incumbent on the third and fourth orders or degrees of Brahmin candidates for final beatitude.

As we have already, in the fifth volume of this work, rather extensively detailed the history of the four ASHERAM, or degrees of Brahmin probation in this transitory world, under the distinct titles BRAHMASSARI, GERISHTH, BANPERISTH, and SANIASSI, and, as this chapter is only a confirmation of the actual existence of the painful trials described in it, little more remains for us than to mark out such striking particulars as could not then be noticed from the want of this authentic document. We have traced the young Brahmin through his years of pupillage, and have seen him pious, content, and happy in the conjugal state. Severer precepts impend over his more advanced life. When his muscles become flaccid and his hair gray, and when he beholds the "child of his child," he must check the farther ebullition of passion, and seek the seclusion of the forest. His wealth, his idols, his household utensils, he must resign to his children: clothed only in the hide of an antelope, or a vesture of woven

bark, he must retire to his hermitage in the high embowering woods, and his food must be confined to bare roots and water. He must fast more rigidly than ever; he must undeviatingly perform all the appointed sacrifices to the gods of India superior and inferior, to the constellations, and the manes of his ancestors; and greatly multiply them at the awful period of the conjunction and apposition of the moon, and at the winter and summer solstices. He must alternately expose himself to the piercing extremes of intense cold and raging heat, or, to use the dreadful words of the Institutes themselves, “let him, in the *hot* season, sit exposed to five fires, four blazing around him with the sun above: in the *rains*, let him stand uncovered, without even a mantle, where the clouds pour down the heaviest showers: in the cold season, let him wear humid vesture; and increase, by decrees rising above each other in harshness, the austerity of his devotion, till he perfectly dries up his bodily frame.” In this short sentence what a catalogue of varied and increasing sufferings; what an inventive genius for torture have these world-renouncing Brahmins! But, farther, if he possess any incurable disease, let him neither aim at palliation or cure; let him bear in silence the most exquisite pains, and bless the gangrene

that, like the unsatiated vulture, preys upon his vitals. If, by these and other excruciating modes, he cannot “ shuffle off ” the incarcerating body, let him seek eternal glory in this world and the next by finally becoming a SANIASSI.

Bearing in one hand a water-pot, in the other a staff, his eye continually fixed on the earth, his lips closed in inviolable silence, the human organs totally subdued, and utterly insensible to whatever passes around him, he must be totally absorbed in profound reflection on the holy *Vedas*, on the transporting joys that animate the just in heaven, on the ineffable torments that await the disobedient in hell. If any pious compassionating Brahmin bring him such homely food as a Saniassi is allowed, in the shade and obscurity of the night he may eat it; or if he fill his pot with the water of the pure rivulet, in the same nocturnal season he may drink it; but he must himself make no exertion, nor feel any solicitude for existence upon this contaminated orb. Happily, for these infatuated devotees, there are always enough of the younger students of the holy tribe to attend **them** in their retirement: who think that, by **ministering** to their necessities, they catch a part of their sanctity, and are entitled to a **portion** of their sublime rewards; for, by long

long continuing these excruciating severities, many of the former are by degrees plunged into a state of stupid insensibility, and become perfect idiots; and the faculties of all are impaired almost to derangement. The corporeal organs, grown callous to every external impression, are divested of all their functions, and the Saniasse appears, to weak-sighted mortals, as an immoveable statue of wood or stone; but the entranced soul is in the highest heaven with the Eternal Mind from which it emanated, and waits only for the total destruction of its unworthy comrade to obtain complete and unbounded absorption in the Deity.

Near the conclusion of this chapter occurs the following whimsical, but striking, description of the *house of clay* tenanted by frail mortals.

“A mansion with *bones* for its rafters and beams; with *nerves* and *tendons* for cords; with *muscles* and *blood* for mortar; with *skin* for its outward covering; filled with no perfume, but loaded with *fæces* and u—e.

“A mansion infested by age and by sorrow, the seat of malady, harassed with pains, haunted with the quality of darkness, and incapable of standing long; such a mansion of the vital soul let its occupier always cheerfully quit.”

Apparently replete with magnanimity and

fortitude as are many of the precepts contained in this chapter, yet it is to be feared they have their foundation in the arrogant conceits of the Brahmins, that lead them to look down with contempt on the works of God and the fellow-creatures with whom they sojourn in this terrestrial sphere, a kind of blind and desperate enthusiasm, rather than a true religious fortitude of mind. Indeed, if there existed no other objection to their celebrated doctrine of the Metempsychosis, it is a sufficient one that its dogmas have a constant tendency to recommend the most determined *suicide*, and to wrest from the hands of the Almighty that supreme power, which he alone by right possesses, of disposing of the lives of the creatures which he has made.

CHAP. VII.

This chapter relates to the mode of rightly administering the government, and the duties of the military, or rajah, class, who are by law appointed to that office.

In the six preceding chapters the duties, functions, and privileges of the Brahmins, or first class, have been very amply discussed; the duties of kings, who form the second, are now

to be unfolded. Kings, were created, say the Institutes, by the Ruler of the universe, to maintain order and enforce law: without a king the world would quake on all sides through fear from the prevalence of crimes: the Brahmin code, therefore, decidedly supports the doctrine of the divine origin of kings. The kingly character is spoken of in the most adulatory terms. A king is represented as the sun that illumines the world; the perfect essence of majesty, by whose favour Abundance rises on her lotos, in whose valour dwells Conquest, in whose anger Death. It is then sublimely added, that, for his use, "Brahma formed, in the beginning of time, the genius of punishment, with a body of pure light, even abstract criminal justice, the protector of all created beings." It is declared that a king, as he is the source of justice, must himself be a bright and exemplary pattern of every virtue. He must rise at early dawn, he must diligently and humbly attend to the lectures of the Brahmins, the hereditary counsellors of the throne, in all the sciences connected with his high office; he must keep his organs in complete subjection, for a king devoted to pleasure is devoted to ruin; he must be neither addicted to gaming, nor intoxication, nor effeminate relaxations, as music, dancing, or singing; the insidious tale-bearer, the mali-

cious detractor, he must avoid as death. He must see with his own eyes, he must hear with his own ears, weigh all matters dispassionately, and inviolably regulate all his decisions by the rules laid down in the Vedas. He must select seven or eight ministers, of noble descent, brave, and skilled in the science of jurisprudence. With these he must daily discuss the important business of peace, of war, and alliance with foreign states, of his forces, of his revenues; with these he must consult on the appointment of proper subordinate officers, civil and military, throughout his whole kingdom; and, with respect to other princes, he must ever be particularly circumspect whom he sends as his ambassador; the august representative, the sacred image, of himself! He must erect a lofty fortress, amidst inaccessible mountains, to which he may retire in case of necessity, and in time of war; around it, for many leagues, must stretch either a vast desert or impenetrable forests. In time of peace he must reside in his capital and among his subjects, whom he must treat as the children of his affection. Remembering his high birth and function, never to recede in battle, to protect the people, and honour the priests, is the summary character here given of a good king. In the subsequent pages the duty and conduct of the inferior rajah and

the common soldier are displayed in terms that evince a consummate knowledge of the art of war as anciently carried on in India. The rajah, it is declared, must be of a liberal and elevated mind, of morals uncorrupted, in combat invincible. With respect to the treatment of a vanquished or a captured enemy, and the division of the spoil, there are many precepts highly honourable and generous.

From his duty in the field, the Indian sovereign is again traced back to his tribunal, and the arrangement of the domestic affairs of the empire. When not engaged in taking the exercise necessary to health, or at his meals, or in moderate enjoyment of the pleasures of the Haram, he must still be found on that tribunal, hearing causes and redressing grievances from dawn to the close of day. Seated conspicuously in the hall of justice, he must make no invidious distinctions; the addresses of the meanest of his subjects must be equally attended to with those of the highest. On one side fiercely blazes the sword of justice; on the other mildly gleam the symbols of benignity and mercy. Then follows a series of rules for regulating the commerce of his immense dominions, the stipulated sums to be paid the sovereign, for security and protection, by every class of traders, are minutely laid down, and the regulations

must be allowed to be, in every respect, both wise and equitable,

C H A P. VIII.

This long chapter discusses farther the important duties of the kingly office ; and enters into various details concerning the private and criminal law of India.

As, in regulating the general concerns of the empire, he is to be assisted by a council of seven or eight ministers of the rajah tribe, so while he presides in the courts of judicature and is determining legal appeals, his judgement, in difficult cases, is to be directed by some aged Brahmin of great experience and erudition in that branch of science, assisted by three others, forming a select assembly, which is in consequence, called by the revered name of Brahma ; *the court of Brahma with four-faces*. It is remarkable that, towards the commencement, Justice is allegorically represented as Vrisha, or *a bull*, and he who violates Justice as Vrishata, or *the slayer of the bull* ; which, as these Institutes are said to be the oldest promulgation of law in the world, next to the Mosaic, may have given the idea of the symbolical bull to *Minos*, the Cretan legislator and supposed son of Jove ; and possi-

bly, as Sir William Jones intimates, from *Menu*, son of Brahma, may be derived the very name of that famous lawgiver. At least it must be considered as a very singular circumstance of similitude that of the Indian Dhermaraja, or *king of justice*, the symbol should also be a *white bull*; nor, in this retrospective view of the mythology of ancient kingdoms will the resembling name of the Egyptian legislator Mnevis, and his companion *Apis*, be wholly forgotten. The decisions that now follow are vastly numerous and varied, and, if minutely detailed, would be very uninteresting to the greater part of my readers, because they have, in general an immediate allusion to the local customs, and the peculiar manners, and superstitious prejudices, of India. The legal student, and persons resident in India, will probably not rest content with any analysis, much less with the subsequent one, of necessity very summary, but consult the book itself, which, by its republication in Europe, is now made sufficiently public.

The laws concerning debtor and creditor are first distinctly laid down, and the rate of interest, upon different kinds of property pledged, specified; that interest is always to be in proportion to the hazard run, and to increase or

decrease, according to the high or inferior class of the person borrowing. *One and a quarter* in the hundred per month, was the interest allowed by Vasishta, and is the standard regulation ; but, in some very perilous cases, even *five in the hundred*, per month, is permitted. The common average interest of money at Rome, in its meridian glory, was *twelve* per cent. per annum, which does not very widely differ from the Indian.

In the next place, the characters of witnesses, proper to be admitted to give evidence, come under examination : that evidence must be solemnly given before some sacred image, a symbol of the Divinity, whose presence in that image is supposed to strike into his soul a holy awe : the most dreadful denunciations are throughout uttered against those whose evidence is not founded in truth. The priest is permitted to swear by his sacred character alone ; the soldier by his horse, his elephant, or his arms ; the merchant by his gold or other articles of traffic ; one of the servile, or fourth class, by imprecating on his head, if he speak falsely, all possible crimes and their punishment. On great occasions criminals are to be tried by fire and by water ; and of him whom that fire burns not, or who sinks not in that water, the veracity must be

considered as perfect. A variety of very severe ordinances in the criminal jurisprudence of India has been already noticed; and some, still more sanguinary, may be found in the course of this chapter. In a country where agriculture and the preservation of kine are an important concern, the most rigid laws concerning trespasses, the removal of land-marks, and the maiming of cattle, are indispensable, and they are here very strictly and copiously laid down. The various species of *defamation* and personal *assault* are then respectively considered; the first is punished by slitting the tongue, the latter according to the degree of injury received, but generally by maiming or amputating the limb that gave the offence, besides the payment of all expences attending the cure of the mutilated person. *Theft* is the next subject considered. The king himself is first cautioned, by dreadful menaces, not to set the example by plundering his subjects. The punishments principally ordained, in this case, are imprisonment, confinement in fetters, corporal punishment, and heavy fines at the discretion of the judge. For stealing men and women, however, the punishment is death. Death also with horrible tortures awaits the foul *adulterer*. In addition to the enormous inherent turpitude of the crime, a political reason

is here alleged for the severity of the Indian code against this offence ; it breaks down the eternal bulwark of the laws of Brahma, and causes a *mixture of the classes of men*. In this respect, resembling our own sacred Scriptures, it extends the guilt of adultery to mental inclination, to presents, and to licentious conversation with the wife of another.

The freight of goods, and the exact prices to be paid as toll at ferries and in the guarded passages of mountains, together with the due regulations for weights and measures, next occupy the attention of the Indian legislator ; a vigorous commerce is recommended to be kept up, by the ruling sovereign, as the firm basis of national wealth and greatness : the horrid traffic in human flesh is sanctioned, and the everlasting servitude of the Sudra tribe is rivetted upon that unfortunate cast by the laws of destiny, since the Sudra was born a slave, and when even emancipated by his indulgent master, a slave he must still continue : “ *for, of a state which is natural to him, by whom can he be divested?*” Thus inconsistent, thus incongruous, is the Hindoo code, which, while it anathematizes thieves, permits the magistrate to share in the plunder, and dooms a considerable portion of the human race to insurmountable slavery,

at the very moment that it strenuously inculcates the sublime dogma of the IMMORTALITY OF MAN.

CHAP. IX.

This chapter is a continuation of the subject of the former; and so important to the general welfare of the state does the Indian legislature consider connubial felicity, that it has provided a particular series of laws for settling the disputes that may arise, in domestic life, between man and wife. Its impartiality, however, is deeply violated by the illiberal reflections again thrown, in the initial paragraphs, on the fairer part of the creation. They are declared utterly unfit to enjoy independence; they must be kept through life under the severest restrictions; and have nothing to do with the text of the Vedas, as if they were an inferior order of beings, and not accountable hereafter for their conduct. It must be owned, however, and lamented, that these degrading sentiments, in regard to the sex, are not peculiar to Hindostan; but have ever been too common over all the despotic kingdoms of the East, where women have immemorially been subjected to the most menial domestic

offices, and hardships ill suited to the tenderness of the female constitution. The disgusting nature of the subject, added to the indelicacy of many of the precepts here given, induces me rather to refer the reader to the book itself than to dilate upon them. The following energetic sentence, however, can by no means be omitted: “the man, who preserves his wife from *vice*, preserves his offspring from the suspicion of *bastardy*, his ancient usages from *neglect*, his family from *disgrace*, himself from *anguish*, and his duty from *violation*.” In this chapter occurs the permission, previously noticed as so congenial with the Levitical law, Deut. xxv. 5, for the brother to ascend the bed of the deceased brother, if the widow *have no issue*, for the purpose of producing such issue. It is to be observed that the permission, in the Hindoo code, is limited to the production of *one son only*; ever after both the brother and the widow, who have thus united, must live together like father and daughter by affinity. This law ceased among the Jews at the period of the Babylonish captivity; and, in the Cali age, is forbidden in Hindostan.

To the laws respecting legal union and issue are properly subjoined those concerning *inheritance*. In these laws, and in a variety of instances, throughout the volume, may clearly be traced

the remote origin of those which, in Europe, we call *feudal*. The elder brother is stated to be in the place of both father and mother to his younger brethren, and they are to look to him as to a parent: in this venerated situation there can be no wonder at his being appointed to succeed to the greater part of the father's fortune, and to all his best goods and chattels; the remainder is divided, in proportion to seniority, among the other sons. The widow must be supported by the benevolence of her eldest son. To the daughters, unmarried at the decease of their father, each brother shall give, by way of portion, a fourth part of his own distinct allotment. Eunuchs, persons expelled from their casts, ideots, and those born blind, deaf, or dumb, the impotent, and incurably diseased, are declared incapable of inheriting; but the heir, under severe denunciations of spiritual vengeance, is bound to supply them through life with food and raiment to the best of his abilities. Under this head of inheritance will be found some very nice and wise distinctions, worthy the minute attention of the legal student, but into the discussion of which it cannot be expected that I should enter.

The laws against *gaming* engross another grand division of the Hindoo penal code, and the penalties are extremely severe, whether it

be performed with dice, or with living creatures, that is, by matches between *rams* and *cocks*, to which the Indian nation have ever been greatly addicted. A prevailing spirit of gaming is truly stated to be the forerunner of destruction to princes, and the subversion of the empire. The sovereign must labour to suppress it, therefore, by every possible means, and punish the professed gamester and keeper of a gaming-house as open thieves. High fines and corporal severities, according to the elevated or inferior class of the offender, are the allotted punishments. To the above enumeration of crimes succeeds, in regular order, the detail of a great variety of offences and laws that could not well be classed under any of the preceding general heads.

Iniquitous and ambitious ministers, who, inflamed by the blaze of wealth, prostitute their high stations to the purposes of gain, are to be stripped of their property. The forger of royal edicts is to be put to death. The incestuous violator of the *paternal bed*; soldiers who intoxicate themselves with arrack, mead, or rum; the sacrilegious stealer of the gold of Bahmins; are ranked among criminals of the highest degree, and punished accordingly. The person who is guilty of cheating in the public bazar, and he who robs in the secluded forest, receivers

of bribes, extorters of money by threats, debasers of metals, fortune-tellers, professors of palmistry, and a long train of petty offenders, whose crimes often evade the vigilance of the public functionary, are to be hunted out by means of spies and emissaries *once thieves themselves, but reformed*, who, by caresses, presents, and other gratifications, having made their way, into their hearts and affections, are to turn public informers, and become the means of dragging them from their haunts to the tribunal of national justice. Those who stand by, neutral and inactive, when they are witnesses to attacks by robbers, or who supply them with sustenance, are to be considered as equally guilty, and share their punishment. The destroyer of a dam, the violator of a pool or well, the obstructor of a water-course, the breaker of a foot-bridge, of a public pavement, or palisade, shall all be respectively and highly mulct. The prisons and places of correction are ordained to be placed as near as possible to the public road, that all men may mark the punishment of guilt, and profit by the groans of the suffering. Then follows a farther recapitulation of the character and duties of a great and good king, and the innumerable blessings that await an empire thus wisely governed. The chapter concludes with laying down a variety

of general precepts for the regulation of the two last classes, the *commercial* and the *servile*.

Of these the VAISYA (or Bice) is the superior; his proper business is agriculture, commerce, and keeping of cattle. While to them the Lord of all created beings intrusted the herds and flocks that range the mountains and the valleys; to the Brahmin and the Khettri he gave in charge the whole human race. With the value of all the precious gems and pearls with which India abounds, with the produce also of all foreign regions, with the correct modes of measuring and weighing, with the excellence or defects of all vendible commodities, and the means of breeding cattle with large augmentation, the Vaisya ought to be intimately acquainted, for they are the occupations allotted him by the irrevocable voice of destiny. He must also be conversant in various dialects, must erect warehouses, safe and substantial, for the different articles of commerce; he must be incessantly vigilant, and may even indulge a solicitude for wealth, so far as that solicitude does not stint his benevolence to sentient creatures. In respect to the SUDRA, he must be content to *serve*; that is his unalterable doom. To serve in the family of a Brahmin is the highest glory of a Sudra, and leads him to certain beatitude. He must, in that humble capacity, in a parti-

cular manner, study purity both of body and mind; be mild in speech, and patient of labour; this will secure him a more eminent class in another transmigration.

CHAP. X.

On the mixed Classes, and on Men's Duty in Times of public Distress.

The tenth chapter of the code is neither very long nor very important; the first part has reference to the genealogy of the tribes, and the purity of their blood. In proportion as they marry in the tribes below them, (for a Brabmin may have a wife from each tribe,) the sons bear the stamp of degradation: if he takes one from the Khettri tribe, he is degraded in the first degree; if from the Vaisya, in the second; and so on. An endless enumeration of instances of this kind follows through all the various classes; their duties are stated and their occupations fixed, since, in fact, those born of mixed blood belong to no original class, and consequently can have no appointed profession. A picturesque description of the miseries of the CHANDALAH, or outcast tribe, succeeds, I presume, *in terrorem* to the others. It is

ordained that they exist remote from their fellow-creatures amidst the filth and dirt of the suburbs ; their sole wealth must consist in dogs and asses ; their clothes must be the polluted mantles of the deceased ; their dishes for food broken pots ; their ornaments, rusty iron ; their food must be given them in potsherds at a distance, that the giver may not be defiled by the shade of their outcast bodies ; their business is to carry out the corpses of those who die without kindred ; they are the public executioners ; and the whole that they can be heir to are the clothes and other wretched property of the slain malefactor. A great many other particulars of this exiled tribe are added by other authors, which I have elsewhere enumerated : and they form, themselves, no weak proof of the unrelenting spirit of the Hindoo code, that could thus doom a vast class of people, a fifth of the nation, to unpitied, perhaps unmerited, wretchedness. An Indian, in his bigotted attachment to the Metempsychosis, would fly to save the life of a noxious reptile ; but, were a Chandalah falling down a precipice, he would not extend his hand to save him from perdition.

The second portion of this chapter discusses the question how, in times of great adversity or distress, the individuals of the four tribes, unable to subsist on their usual occupation, are

to obtain a maintenance. A Brahmin, it is determined, unable to live by the duties of his profession, may even take up arms and become a soldier; or he may enter into commerce, and subsist as a mercantile man; or finally, if absolutely necessary, by tillage, and attending cattle. A great many more restrictions, however, are laid upon the Brahmin, thus occupied, on account of his purer character, than on the soldier, the merchant, and herdsman, engaged in their native employ; many articles used in war and commerce being absolutely forbidden *him* even to touch, which are familiar to *them*. A Khettri, or military man, in distress, may subsist by all these means in the descending scale: but he must never aspire to the honours of the sacerdotal function. The mercantile man and the Sudra may, in the same manner, deviate from their own immediate line of life; but nothing of this kind is to be done without urgent and indispensable necessity, since it immediately breaks in upon the sublime laws of Brahma, instituted at the beginning of time, and violates the eternal order of the Indian casts.

C H A P. XI.

On Penance and Expiation.

A considerable portion of the rules and precepts laid down in this chapter is mere repetition of those inculcated in the sixth chapter, or that on DEVOTION: some are very severe, and others even ludicrous. What is *new* on the subject need only be noticed amidst the terrible display which it exhibits of expiatory tortures. These expiations, however, are not always by corporeal punishment; they may be compounded for by high fines paid to the gods, and their vicegerents the *Brahmins*. The slayer of a Brahmin undesignedly, if he be of the military tribe, must expose himself to be shot to death by archers, or cast himself headlong thrice into a blazing fire. He, who has intentionally drunk inebriating liquor, may expiate his crime by swallowing spirit on flame, or by severely burning his body. For stealing from a Brahmin, he must carry to the king, on his shoulder, an *iron mace*, with which the sovereign must strike him, and, whether he die or not by the blow, the crime is expiated. He, who has accidentally killed a cow, must array himself in her hide, and, thus invested, must, for three

months, incessantly attend the herd to which she belongs, and guard them from tigers by night and by day. For killing snakes and other animals, offerings are to be made to the Brahmins, proportioned to the purity and value of the animals slain. An immense catalogue of smaller offences, or rather of acts only criminal on Indian ground, are enumerated, and the expiations prescribed are, in general, long abstinence from food, swallowing the urine of a cow, prolonged suppression of the breath, sitting up to the neck in water, or some such singular punishment. For the greater offences, among other inflictions, we find mentioned the *ardent penance*, as it is rightly enough denominated, boiling milk or oil; hot clarified butter; hot steam, termed *paraca*; total fasts of dreadful length, twelve days and nights, if such fasts could ever be performed; the *lunar penance*, or *chandrayana*, in which only eight mouthfuls of undrest grain a day are allowed to be eaten, four in the morning and four at night, during a whole month. The wretched penitent, during all this time, must never suffer his wearied lids to close, nor his fainting feet to pause. As he ranges the desert forest, or stems the torrent wave, he must perpetually repeat the holy *Vedas*, keep all his organs in entire subjection, and ever keep his eye rivetted

on the ground. Never was superstition carried to such dreadful extremes ; and what is thus sternly ordained has been known to be as rigidly executed, and is, in fact, at this day executing in India.

CHAP. XII.

On Transmigration and final Beatitude.

Such, as have been described, are the duties incumbent on the four great tribes : the ultimate reward, the radiant meed, of toiling virtue is now to be revealed. Making a distinction between the vital spirit and the intellectual soul in man, the code declares man accountable to YAMA, the Hindoo Pluto, for the minutest actions of his life and the most hidden movements of his heart. Though the present body be consumed to ashes on the funeral pile, yet it affirms that another body, composed of finer nerves and elements, in order to be susceptible of torment, shall certainly be assumed by that soul hereafter. Sensible of these migrations, therefore, says Menu, let each man continually fix his heart on virtue : the Metempsychosis, therefore, was invented to build up mankind in virtue and piety. The human soul is declared to be

invested with three distinct qualities, that of *goodness*, of *passion*, and of *darkness*. Between the former and the two latter of these there is a violent and perpetual struggle, and, as either the one or the other proves victorious, the soul either mounts upwards on eagle pinions to the celestial regions, its native and sublime abode; or is depressed to *PATALA*, the infernal regions, and becomes the companion of monsters engendered in darkness and fiends that delight in blood. Similar to the passions to which they devoted themselves on this probationary scene, will be the animal into which, in a future birth, the migrating soul will descend. The form of the furious lion and tiger will receive the soul in which anger and revenge predominate. Unclean and ravenous birds are the allotted mansion of souls polluted with lust and blinded by ambition. Noxious and loathsome reptiles are the abode of those debased by grovelling and sordid passions. To some, vegetable and mineral substances are the prison assigned. Of others, sharks, crocodiles, and a variety of aquatic monsters, are the destined repository. The profoundest caverns of the ocean, and the bowels of the highest mountains, swarm with transmigrating existences.

The code afterwards expressly adds, that, in the same precise degree that vital souls,

addicted to sensuality, indulge themselves in forbidden pleasures, shall the acuteness of their senses be raised in their future bodies, that they may endure analagous pains. For the utterly abandoned, it mentions a place reserved of intense darkness; the *sword-leaved* forest, and other places of dreary exile, combined with multifarious tortures, await them: they shall be mangled by vultures and ravens; they shall swallow cakes boiling hot, alluding to the sacred cakes offered to the manes of their ancestors; shall walk over burning sands, and feel the parching flame as if baked in a furnace. They shall experience the alternate extremities of cold and heat, and be surrounded with unutterable horrors. All this shall they endure for innumerable ages, and then again begin their probationary career on earth.

After considering the Metempsychosis on the dark side of the portrait, in the descending scale, let us consider it in the ascending line.

The vital soul devoted to goodness and purity, that has passed the probationary terrestrial period in profound study of the Vedas, in practising severe austerities, in an entire command over the sensual organs; that has avoided all injuries to the brute creation, and has paid due reverence to parents; has insured to itself final beatitude. Some very sublime and noble

noble sentiments of the Deity succeed. A true knowledge of the ONE SUPREME GOD is declared to be the most exalted of sciences, for in that knowledge and in his adoration are comprised all the duties incumbent on man, on man, wandering in darkness and error, amid the nether spheres, but himself an emanation of the skies, a portion of the SUPREME SOUL, whence are diffused, like sparks from fire, innumerable vital spirits. Then follows this very elevated passage, which I shall give unabridged. "Equally perceiving the Supreme Soul in all beings, and all beings in the Supreme Soul, he sacrifices his own spirit by fixing it on the Spirit of God, and approaches the nature of that Sole Divinity who shines by his own effulgence." What great pity it is that a nation, who could think and write with such purity and sublimity on sacred subjects, should ever have debased their theology by extravagant allegories? but such is the genius of the Hindoos, and indeed of all the eastern nations, though the most frozen critic would scarcely object to them, were they always as temperate as in the following instance. "As fire, with augmented force, burns up even humid trees, thus he, who well knows the Veda, burns out *the taint of sin* which has infected his soul." Having thus laboured to burn out the taint of

sin from his polluted soul, (but why these strong and repeated expressions concerning the deep and radical stain with which the soul is contaminated, if they did not believe in *original sin*, and *the fall of man*?) having rigidly performed all the prescribed duties of his cast, the soul of the virtuous Indian, in the future scenes of its existence, migrates through and among objects as transcendently beautiful and delightful as the depraved spirit performs its painful peregrinations through creatures deformed and disgusting. Its destined receptacles hereafter are the loveliest and most enchanting objects in the vast limits of nature, and in the still more extended field of fancy. Elysiums, such as poets never yet feigned, and paradises, such as inflamed enthusiasm, in its loftiest flight, never dared to conceive, await the beatified spirit. After bathing for ages in this abyss of joys, that it may be the better prepared for those of infinity, the pure spirit ascends the empyreum, and, in the first stage, joins the order of demi-gods, wafted in airy cars through the expanse of heaven, while the genii of the zodiacal signs and lunar mansions hail and embrace their delighted comrade. In the next stage, he mounts to the deities of the inferior heaven, and triumphantly joins the genii of the immortal *Vedas*, the re-

gents of stars, *not in the path of the sun and moon, i. e.* the most remote from human ken, blazing on the extreme verge of creation, the divinities that preside over the great cycles of time, and the superintendants of the vast universe. In the last stage, he exultingly passes the flaming bounds of time and space, and is received in the highest heaven of Brahma, *awful with four faces*, inshrined in light more refulgent than a thousand suns, eternally to participate of his glory and be absorbed in his essence.

THE END.

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